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U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

1879 · CENTENNIAL · 1979

Water Resources Data for Alaska

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AK-78-1

WATER YEAR 1978

Prepared in cooperation with the State of Alaska
and with other agencies

CALENDAR FOR WATER YEAR 1978

1977

OCTOBER

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U.S. DEPARTMENT OF THE INTERIOR
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Water Resources Data for Alaska

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WATER YEAR 1978

Prepared in cooperation with the State of Alaska
and with other agencies

I

UNITED STATES DEPARTMENT OF THE INTERIOR

Cecil D. Andrus, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Alaska write to
District Chief, Water Resources Division
U.S. Geological Survey
Skyline Building, 218 E Street
Anchorage, Alaska 99501

1979

II

PREFACE

This report was prepared by personnel of the Alaska district of the Water Resources Division of the U.S. Geological Survey under the supervision of Harry Hulsing, District Chief, and W. H. Robinson, Regional Hydrologist, Western Region. It was done in cooperation with the State of Alaska and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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Water resources data for the 1978 water year for Alaska consists of records of stage, discharge, and water quality of streams; stage and water quality of lakes; and water levels and water quality in wells and springs. This report contains discharge records for 117 gaging stations; stage only records for 2 gaging stations; water quality for 64 stations; and water levels for 28 observation wells. Also included are 79 low-flow, 87 crest-stage, and 24 water-quality partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements of discharge, lake stage, or water quality. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Alaska.

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[*Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment*]

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[*Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment*]

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[*Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment*]

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INTRODUCTION

Water resources data for the 1978 water year for Alaska consist of records of stage, discharge, and water quality of streams; stage and water quality of lakes; water levels and water quality of ground-water wells; and water quality of springs. This volume contains records for water discharge at 117 gaging stations; stage only at 2 gaging stations; water quality at 64 gaging stations; and water levels for 28 observation wells. Also included are data for 79 low-flow, 87 crest-stage, and 24 water-quality partial-record stations and 29 lakes. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Alaska.

Records of discharge and stage of streams, stage of lakes, chemical quality, water temperatures, and suspended sediment were first published in U.S. Geological Survey water-supply papers. Through September 30, 1960, these data were published in seven water-supply papers entitled, "Quantity and Quality of Surface Waters of Alaska" (through 1950, 1951-53, 1954-56, 1957, 1958, 1959, 1960). Since 1960, streamflow records and related data were published in a five-year series of water-supply papers for 1961-65 and 1966-70 entitled, "Surface Water Supply of the United States." Water-quality records were published in a water-supply paper entitled "Quality of Surface Waters of Alaska, 1961-63" and after then until 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1949 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report AK-78-1." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on the back of the title page or by telephone (518) 472-2457.

COOPERATION

The U.S. Geological Survey and organizations of the State of Alaska have had cooperative agreements since 1958 for the systematic collection of streamflow records, water-quality records, and ground-water levels. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Alaska Department of Natural Resources, R. E. LeResche, commissioner.

Alaska Department of Environmental Conservation, E. W. Mueller, commissioner.

Alaska Department of Transportation and Public Facilities in cooperation with the Federal Highway Administration, U.S. Department of Transportation, D. H. Harris, commissioner.

Capitol Site Planning Commission, R. L. Evans, administrative director.

Alaska Department of Fish and Game, R. O. Skoog, commissioner.

Alaska State Pipeline Coordinator's Office, Cy Price.

Alaska Power Authority, E. P. Yould, executive director.

Kenai Peninsula Borough, D. E. Gilman, mayor.

Municipality of Anchorage, G. M. Sullivan, mayor.

Fairbanks North Star Borough, J. A. Carlson, mayor.

Thomas Bay Power Commission.

Assistance in the form of funds or services was given by the following federal agencies for information published in this report: Corps of Engineers, U.S. Army, for 30 gaging stations and 5 water-quality stations; Forest Service, U.S. Department of Agriculture, for 12 gaging stations and 11 water-quality stations; Alaska Power Administration, U.S. Department of the Interior, for 3 gaging stations; and Environmental Protection Agency, for water-quality data.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENT

Alaska district personnel who contributed significantly to the collection and preparation of the data in this report are too numerous to mention individually. However, these people were in the following groups: Hydrology Section, R. D. Lamke, chief; Anchorage Subdistrict, R. S. George, chief; Fairbanks Subdistrict, Bruce Parks, chief; and Juneau Subdistrict, V. K. Berwick, chief.

HYDROLOGIC CONDITIONS

Streamflow in Alaska for the 1978 water year was deficient (in the lowest 25 percent for the period of record) at about one-third of the long-term gaging stations (those stations with ten or more years of record). These areas with much lower than normal flow were in Southeast Alaska and the rivers near Fairbanks tributary to the Tanana River. Streamflow in the Kuskokwim River basin also was deficient; the gaging station, Kuskokwim River at Crooked Creek, had the lowest annual flow in 27 years of record. Streamflow for the year was excessive (in the highest 25 percent for the period of record) at only two long-term gaging stations within the state. No outstanding or widespread floods occurred during the year.

In Southeast Alaska, streamflow in October at most of the long-term gaging stations was excessive or above average because of rains near the middle and last of the month. However, streamflows declined afterward and runoff was below normal or deficient in December and January. During February through April, runoff was in the normal range. However, streamflow declined to the deficient range in May and continued to be deficient through June and July. At many of the stations, streamflow continued in the deficient range. The two stations, Mendenhall River near Auke Bay and Skagway River at Skagway, that were not deficient in streamflow during the summer have large glacier areas. The average flow for the year at half of the stations in Southeast Alaska was the lowest of record. Fish Creek near Ketchikan had the lowest yearly discharge in 60 years of record.

In the rest of Alaska, streamflow generally was excessive or greater than normal throughout the winter because of the milder than normal winter temperatures. However, streamflow throughout the summer generally was below average or deficient and about one-fourth of the stations had deficient flows for the year.

Monthly and annual mean discharge for 1978 is compared in figure 3 with mean monthly and annual discharge for the period of record at six representative gaging stations throughout Alaska.

NOTICE

During water year 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology and to conform to a joint USGS-EPA agreement on terminology. They do not represent a change in the way the codes have been used in the past or in the association of specific code numbers with identified analytical procedures.

Use of the new terminology began with data for the 1978 water year, and therefore, it first appears in this publication. Definitions on which the terminology is based are included in the "Definitions" section of this report, and a table showing both old and new terminology is attached as an appendix to the report.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined as follows. See also the table for converting English Units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters (mL) of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic organisms (invertebrates) are animals inhabiting the bottom of an aquatic environment. They include a number of different types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are frequently used as indicators of environmental quality because many have restricted mobility during their aquatic life phase, as well as a relatively long lifespan which allows for response to prevailing and changing water-quality conditions. Many benthic organisms inhabit specific types of environments which, if changed, result in changes in the composition of the benthic community.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material".

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,447 cubic meters.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, or ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream or lake where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO^3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distribution given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocuri (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended-sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content in the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total".

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom................Animal
Phylum..............Arthropoda
Class..................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus.................Hexagenia
Species......Hexagenia limbata

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total, recoverable is the amount of a given constituent that is in solution after a representtative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total". (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 15303600, which appears just to the left of the station name, includes the 2-digit part number "15" plus the 6-digit downstream order number "303600."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

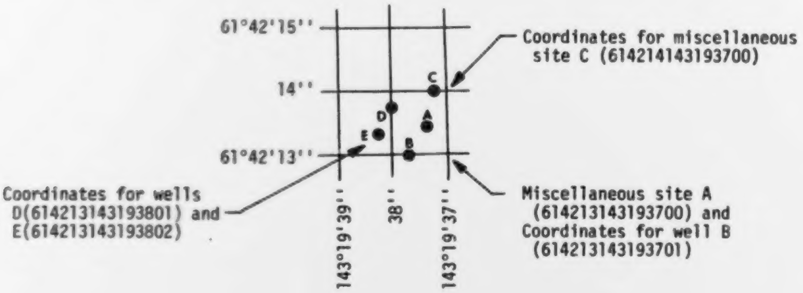

61°42'15''
14''
61°42'13''
Coordinates for miscellaneous site C (614214143193700)
C
D
A
E
B
Coordinates for wells D(614213143193801) and E(614213143193802)
143°19'39''
38''
143°19'37''
Miscellaneous site A (614213143193700) and Coordinates for well B (614213143193701)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distributuon of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams and stage of lakes. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At most stream-gaging stations in Alaska the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed or estimated on the basis of the available gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge. This happens when the recorder is stopped for the winter or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams a table showing the daily discharge and monthly and yearly discharge is given. Tables of daily mean gage heights are included for some streamflow stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging stations gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 5.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; It is not given for stations having fewer than 5 complete years of record. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge, it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if most of the flow is from a spring. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations. Lake-level data collected at miscellaneous selected lakes are tabulated also.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, flow from springs, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions or for other changes incident to use and control.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is filed in the subdistrict offices at Anchorage, Fairbanks, and Juneau for their areas of responsibility. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network consists of observation wells located in the most important aquifers, and therefore the most significant data are obtained from the fewest wells. (See figure 4.)

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. (See figure 1.)

The local number used herein is partly based on the rectangular subdivision of public lands. The first two letters indicate the principal meridian and the quadrant formed by the intersection of the base line and the principal meridian. The first three digits indicate the township in which the well is located, the next three digits the range, and the following two digits the section. Letters following the section number indicate the quarter section, the quarter-quarter section, and so forth to the fourth order subdivision. Each of these subdivisions is lettered counter-clockwise, from the northeast corner. Each well within the smallest order of subdivision is then given a sequential number. Finally, each well within a section is assigned a sequential map number using the last three digits. Thus, SB00601115BCAD1 indicated the Seward meridian (S), the northwest quadrant (B), township 6 north, range 11 west, section 15; and the well is in the SE¼ of the NE¼ of the SW¼ of the NW¼ of the section (BCAD). It was the first well in the 2.5 acre "D" subdivision assigned a sequential number (1). The next three digits, 001, indicate the sequence in which a well was located on a map. Thus 001 indicates it was the first well plotted in the one square mile section. The next space is left blank. The last five numbers, such as 00114, are the Alaska register number, that is provided for continuity with older reports. Therefore, the local number is SB00601115BCAD1001 00114.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet referred to either National Geodetic Vertical Datum (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom). The extreme water levels recorded during the year are reported as the maximum (MAX) or highest water level (HWL) and as the minimum (MIN) or lowest water level (LWL).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but a few are given only to a tenth of a foot.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office. Prices are effective October 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W.Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $2.50.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $1.20

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elments in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

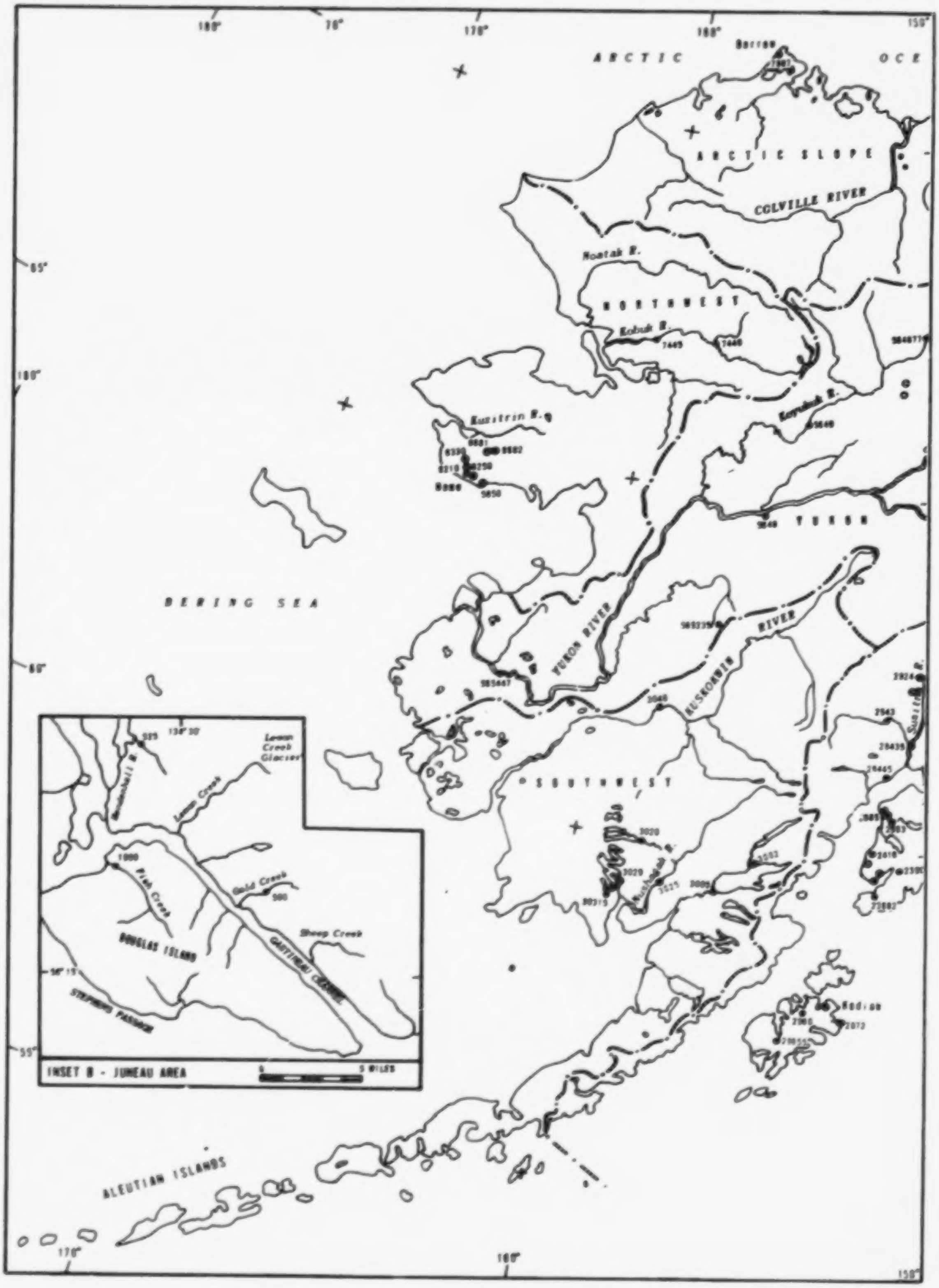
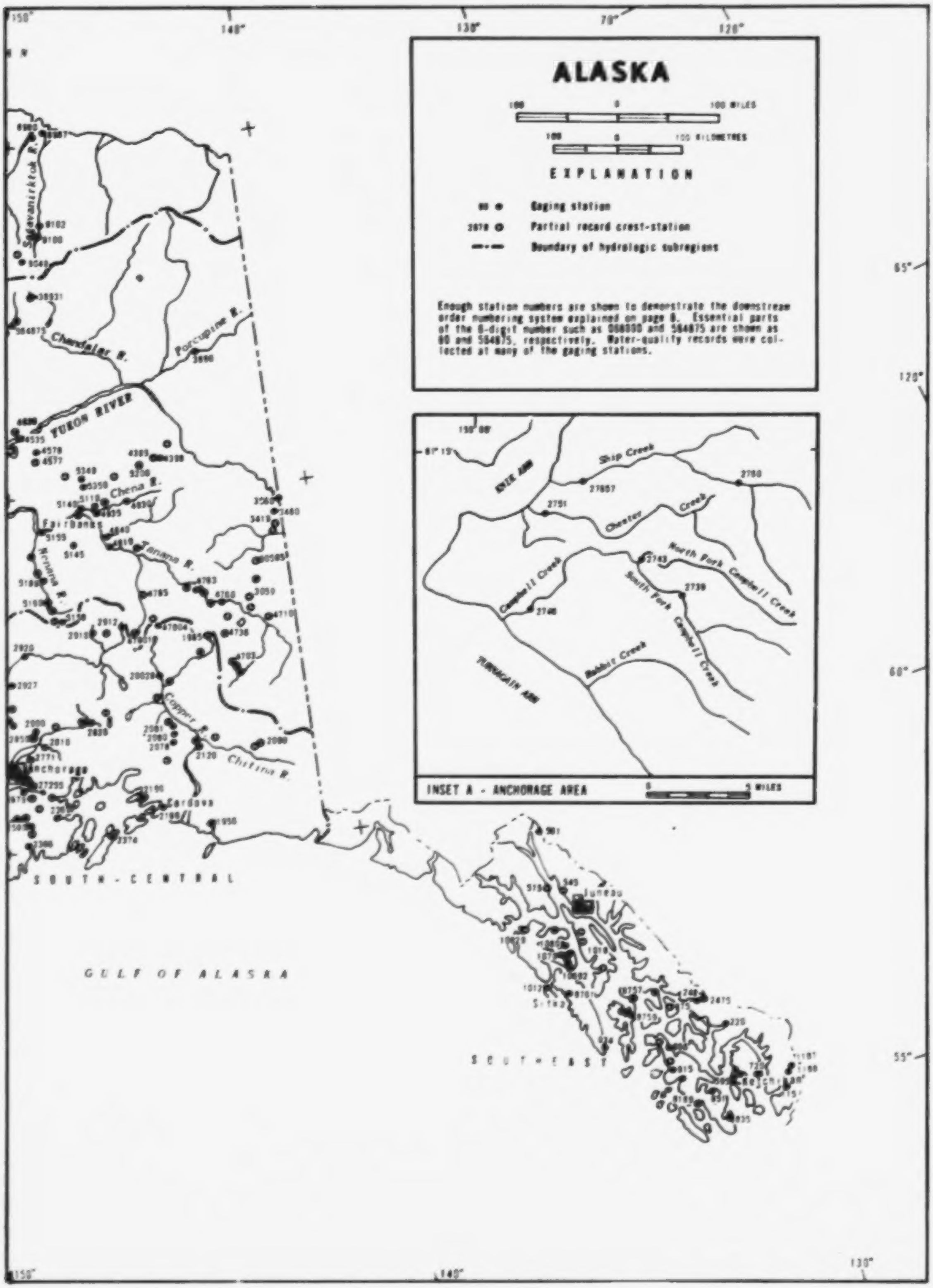

170°
160°
150°
65°
60°
55°
ARCTIC OCE
Barrow
ARCTIC SLOPE
COLVILLE RIVER
Noatak R.
NORTHWEST
Kobuk R.
Koyukuk R.
Kuzitrin R.
Nome
YUKON
YUKON RIVER
BERING SEA
KUSKOKWIM RIVER
RIVER
SOUTHWEST
Kodiak
ALEUTIAN ISLANDS
Lemon Creek Glacier
Lemon Creek
Mendenhall R.
134°30'
Fish Creek
Gold Creek
Sheep Creek
DOUGLAS ISLAND
GASTINEAU CHANNEL
STEPHENS PASSAGE
58°15'
INSET B - JUNEAU AREA
0
5 MILES

Figure 2.--Map showing locations of gaging stations (west of 150° longitude).


ALASKA
100 0 100 MILES
100 0 100 KILOMETRES
EXPLANATION
80 ● Gaging station
2070 ◎ Partial record crest-station
—·— Boundary of hydrologic subregions
INSET A - ANCHORAGE AREA
0 5 MILES
Ship Creek
Chester Creek
North Fork Campbell Creek
South Fork Campbell Creek
Campbell Creek
Rabbit Creek
KNIK ARM
TURNAGAIN ARM
150°
140°
130°
120°
70°
65°
60°
55°
Sagavanirktok R.
Chandalar R.
Porcupine R.
YUKON RIVER
Chena R.
Fairbanks
Nenana R.
Tanana R.
Copper R.
Chitina R.
Anchorage
Cordova
Juneau
Sitka
Ketchikan
SOUTH-CENTRAL
SOUTHEAST
GULF OF ALASKA

Enough station numbers are shown to demonstrate the downstream order numbering system explained on page 8. Essential parts of the 8-digit number such as 008000 and 564875 are shown as 80 and 564875, respectively. Water-quality records were collected at many of the gaging stations.

Figure 2.--Continued (east of 150° longitude).

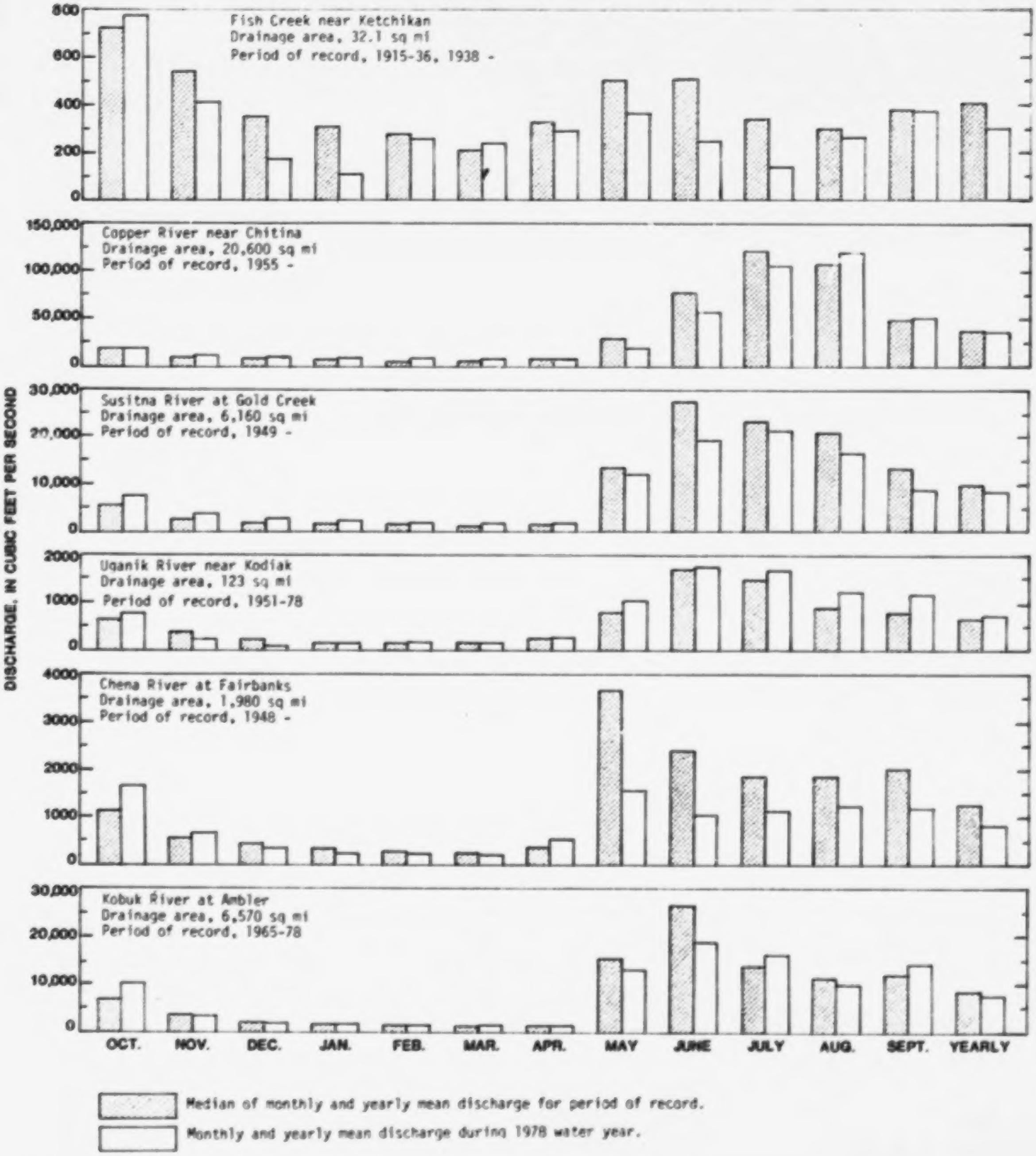


Figure 3.--Discharge during 1978 water year compared with mean discharge for period of record for six long-term representative gaging stations.

SOUTHEAST ALASKA

15011500 RED RIVER NEAR METLAKATLA

LOCATION.--Lat 55°08'29", long 130°31'50", Hydrologic Unit 19060000, in Tongass National Forest, on left bank 0.2 mi (0.3 km) upstream from mouth at northeast end of Marten Arm of Boca De Quadra and 41 mi (66 km) east of Metlakatla.

DRAINAGE AREA.--45.3 mi² (117.3 km²).

PERIOD OF RECORD.--August 1963 to September 1978 (discontinued).

REVISED RECORDS.--WSP 2136: 1964 (M).

GAGE.--Water-stage recorder. Altitude of gage is 5 ft (1.5 m), from topographic map.

REMARKS.--Records fair except those for Nov. 20 to Feb. 4 and Apr. 26 to Aug. 4, which are poor. Periodic high tides cause backwater at the gage and are shown on the stage record.

AVERAGE DISCHARGE.--15 years, 577 ft^3/s (16.34 m^3/s), 172.97 in/yr (4,393 mm/yr), 418,000 acre-ft/yr (515 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s (351 m^3/s) Nov. 3, 1976, gage height, 10.79 ft (3.289 m), from rating curve extended above 1,400 ft^3/s (40 m^3/s); minimum daily, 21 ft^3/s (0.59 m^3/s) Jan. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (155 m^3/s) and maximum (*).

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 11	2330	6,750	191	8.83	2.691
Oct. 22	0010	*7,040	199	*8.94	2.725

Minimum daily discharge, 31 ft^3/s (0.878 m^3/s) Jan. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686	390	150	62	150	113	162	560	540	240	100	299
2	258	341	130	64	190	102	158	810	490	220	94	187
3	185	325	120	64	240	94	162	900	440	200	200	154
4	217	308	110	47	310	89	205	720	410	170	800	136
5	202	291	100	43	464	84	319	580	380	205	1540	113
6	147	444	115	40	738	140	311	480	350	225	1580	102
7	640	288	125	37	569	606	530	390	330	240	3760	90
8	652	241	140	36	357	749	376	355	310	190	751	81
9	361	191	185	35	264	442	929	335	315	180	350	75
10	635	256	180	34	204	464	1170	325	320	215	397	85
11	4250	3300	160	34	147	231	414	320	325	245	335	81
12	2440	1140	145	33	122	175	366	325	340	270	224	73
13	1330	924	137	33	104	146	291	350	365	190	286	233
14	687	1230	128	32	94	129	251	370	370	250	724	710
15	2040	630	118	32	85	122	204	400	390	300	411	1020
16	1590	350	110	32	151	156	183	425	410	390	236	1390
17	2370	251	98	31	112	137	181	460	435	540	278	461
18	1240	189	90	31	146	125	202	500	415	460	353	248
19	568	165	84	31	828	282	277	510	315	370	224	1170
20	325	150	78	31	842	322	451	500	300	320	179	1210
21	1040	155	75	34	790	204	495	470	340	285	180	1670
22	4370	165	75	37	1490	156	455	420	360	250	178	1500
23	866	185	78	60	448	184	455	370	300	225	175	1100
24	600	220	86	200	258	436	433	350	260	205	141	700
25	1710	270	88	160	200	688	410	355	280	180	171	520
26	1960	325	88	125	165	357	430	400	290	160	132	380
27	1770	420	87	100	146	397	470	480	320	145	119	450
28	944	500	83	80	129	293	540	800	295	135	104	700
29	632	640	76	78	---	226	500	980	280	125	136	1300
30	475	180	61	100	---	197	440	770	260	120	308	1000
31	422	---	60	120	---	175	---	680	---	105	287	---
TOTAL	35612	14464	3360	1876	9743	8021	11770	15690	10535	7355	14753	17238
MEAN	1149	482	108	60.5	348	259	392	506	351	237	476	575
MAX	4370	3300	185	200	1490	749	1170	980	540	540	3760	1670
MIN	147	150	60	31	85	84	158	320	260	105	94	73
CFSM	25.4	10.6	2.38	1.34	7.68	5.72	8.65	11.2	7.75	5.23	10.5	12.7
IN.	29.24	11.88	2.76	1.54	8.00	6.59	9.67	12.88	8.65	6.04	12.11	14.16
AC-FT	70640	28690	6660	3720	19330	15910	23350	31120	20900	14590	29260	34190

CAL YR 1977 TOTAL 169102 MEAN 463 MAX 4370 MIN 60 CFSM 10.2 IN 138.86 AC-FT 335400
WTR YR 1978 TOTAL 150417 MEAN 412 MAX 4370 MIN 31 CFSM 9.10 IN 123.52 AC-FT 298400

15011870 WHITE CREEK NEAR KETCHIKAN

LOCATION.--Lat 55°24'51", long 130°27'38", in NW¼NW¼ sec.36, T.74 S., R.98 E., Hydrologic Unit 1906000, in Tongass National Forest, on left bank 0.5 mi (0.8 km) upstream from mouth and 45 mi (72 km) east of Ketchikan.

DRAINAGE AREA.--2.70 mi^2 (11.25 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,250 ft (380 m), from topographic map.

REMARKS.--Water-discharge records poor. Satellite telemeter at station.

EXTREMES FOR CURRENT PERIOD.--September 1977: Maximum discharge during period, 15 ft^3/s (0.42 m^3/s) Sept. 27, gage height, 1.38 ft (0.421 m); minimum daily, 7.1 ft^3/s (0.20 m^3/s) Sept. 11.

Water year 1978: Maximum discharge, 503 ft^3/s (14.2 m^3/s) Oct. 11, gage height 3.53 ft (1.076 m), from rating curve extended above 330 ft^3/s (9.3 m^3/s); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1977
MEAN VALUES

DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP
1	7.9	6	8.5	11	7.1	16	7.9	21	8.5	26	9.8
2	7.4	7	7.8	12	7.2	17	7.7	22	9.3	27	10
3	7.2	8	8.4	13	7.5	18	8.3	23	8.8	28	10
4	7.3	9	7.2	14	7.9	19	8.5	24	9.3	29	9.2
5	8.4	10	7.2	15	7.9	20	8.3	25	9.3	30	8.2

SEPTEMBER TOTAL - 248.0 MEAN - 8.27 MAX - 10 MIN - 7.1 CFSM - 3.06 IN. - 3.42 AC-FT - 492

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	18	7.9	2.5	4.1	6.6	6.0	33	30	19	5.4	18
2	6.3	15	7.0	2.4	3.9	6.3	5.6	34	40	16	5.3	14
3	6.6	13	6.0	2.3	3.8	6.4	5.4	29	43	15	5.3	14
4	21	11	5.4	2.3	3.9	6.7	8.0	23	36	15	5.0	13
5	12	10	4.9	2.2	4.3	9.7	17	23	30	17	7.8	11
6	10	9.0	4.4	2.3	6.0	86	35	23	40	16	31	8.7
7	33	8.4	4.0	3.0	18	55	70	26	30	15	300	7.8
8	27	7.8	3.7	4.0	15	36	130	28	30	15	170	7.1
9	18	7.1	3.4	8.0	12	25	200	28	40	15	95	6.1
10	40	8.8	3.2	11	9.3	16	70	24	58	14	54	6.0
11	347	62	2.9	8.0	7.1	9.7	32	23	35	13	30	9.0
12	148	30	2.7	6.5	6.0	7.9	25	29	30	15	21	21
13	138	26	3.4	5.4	5.3	7.5	21	25	29	17	21	52
14	61	24	16	4.8	4.6	6.3	19	23	29	13	30	130
15	135	16	12	4.4	4.2	5.6	17	22	29	20	27	75
16	114	11	9.0	4.1	4.0	4.9	16	32	30	32	22	44
17	200	8.8	7.6	3.9	3.8	4.9	15	26	50	30	24	23
18	84	7.1	6.6	3.8	3.7	6.0	15	23	30	24	26	17
19	47	6.3	5.8	3.6	33	28	21	25	28	15	19	23
20	32	6.0	5.2	3.5	80	8.4	16	29	28	15	17	200
21	48	5.3	4.7	15	50	7.5	15	24	29	14	13	80
22	232	4.9	4.3	61	32	7.0	27	23	29	12	13	27
23	64	4.6	3.9	61	20	7.6	29	24	29	11	13	22
24	45	4.3	3.6	58	14	14	28	29	27	9.7	12	17
25	73	4.0	3.4	37	11	23	29	37	22	8.6	20	14
26	89	4.6	3.2	15	9.3	16	32	29	21	7.7	15	12
27	79	5.3	3.0	9.3	7.9	11	33	29	29	7.1	12	11
28	46	13	2.9	6.3	7.1	9.7	31	30	25	7.1	10	18
29	34	20	2.7	5.4	---	8.4	27	29	20	6.5	10	70
30	29	13	2.6	4.8	---	7.4	28	28	20	6.1	16	64
31	21	---	2.5	4.4	---	6.8	---	29	---	5.7	21	---
TOTAL	2247.2	384.3	157.9	365.2	383.3	461.3	1023.0	839	946	446.5	1070.8	1034.7
MEAN	72.5	12.8	5.09	11.8	13.7	14.9	34.1	27.1	31.5	14.4	34.5	34.5
MAX	347	62	16	61	80	86	200	37	58	32	300	200
MIN	6.3	4.0	2.5	2.2	3.7	4.9	5.4	22	20	5.7	5.0	6.0
CFSM	26.9	4.74	1.89	4.37	5.07	5.52	12.6	10.0	11.7	5.33	12.8	12.8
IN.	30.95	5.29	2.17	5.03	5.28	6.35	14.09	11.56	13.03	6.15	14.75	14.25
AC-FT	4460	762	313	724	760	915	2030	1660	1880	886	2120	2050

WTR YR 1978 TOTAL 9359.2 MEAN 25.6 MAX 347 MIN 2.2 CFSM 9.48 IN 128.90 AC-FT 18560

15011870 WHITE CREEK NEAR KETCHIKAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February to September, 1978.
WATER TEMPERATURES: February to September, 1978.

INSTRUMENTATION.--Water-quality monitor since Feb. 2, 1978.

REMARKS.--Records are poor. Temperature probe was out of water from Apr. 22 to July 18 after which the probe was disconnected for mechanical reasons and was reinstated on Sept. 11. Specific conductance probe out of water from May 21 to July 18 and it was operational after Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT												
05...	1630	1/80020	12	39	--	--	6.0	8	11.2	4	15	13
05...	1631	2/ 9815	12	--	--	--	--	--	--	--	--	--
NOV												
29...	1130	80020	18	27	6.4	--	1.5	10	13.4	8	14	13
FEB												
02...	1115	80020	E4.0	72	6.4	-10.0	.0	1	14.6	6	25	21
02...	1116	9815	E4.0	--	--	--	--	--	--	--	--	--
MAY												
24...	1330	80020	27	31	6.0	15.0	3.0	1	12.7	15	9	9
24...	1331	9815	27	--	--	--	--	--	--	--	--	--
SEP												
11...	1045	80020	6.3	--	6.0	--	8.0	1	10.2	<25	18	14
11...	1046	9815	6.3	--	--	--	--	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
05...	6.0	.1	.8	.2	3	0	12	.8	.1	4.6	14	26
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	4.9	.3	.7	.2	1	0	9.5	.9	.0	4.1	23	22
FEB												
02...	9.2	.4	.6	.3	5	0	21	.5	.1	5.8	31	40
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
24...	3.6	.1	.7	.1	4	0	10	.6	.0	4.1	12	21
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
11...	7.0	.2	1.1	.2	5	0	18	.5	.1	6.5	33	36
11...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT												
05...	.05	--	--	--	--	.02	--	--	--	--	--	--
05...	--	--	--	--	--	--	ND	0	--	<2	0	ND
NOV												
29...	.04	.00	.05	.05	.33	.00	1	0	600	0	0	0
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	ND	--	--	<1	--	ND
MAY												
24...	.00	--	--	--	--	.01	--	--	--	--	--	--
24...	--	--	--	--	--	--	ND	2	--	<1	2	ND
SEP												
11...	.01	--	--	--	--	.00	--	--	--	--	--	--
11...	--	--	--	--	--	--	ND	1	--	<1	0	<5

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
E ESTIMATED
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15011870 WHITE CREEK NEAR KETCHIKAN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, DISSOLVED (UG/L AS NI)
OCT												
05...	--	--	--	40	--	--	--	0	--	--	--	--
05...	8	ND	4	--	2000	ND	0	--	ND	14	<8	6
NOV												
29...	8	1	4	40	2000	1	0	8	ND	7	13	--
FEB												
02...	--	--	--	30	--	--	--	10	--	--	--	--
02...	--	ND	--	--	--	<5	--	--	--	23	--	ND
MAY												
24...	--	--	--	20	--	--	--	0	--	--	--	--
24...	8	ND	5	--	2600	ND	4	--	--	19	11	ND
SEP												
11...	--	--	--	40	--	--	--	0	--	--	--	--
11...	3	ND	4	--	2700	ND	1	--	--	<50	20	<10

DATE	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	1	.03
05...	1	--	0	--	0	11	6	--	--	.00	--	--
NOV												
29...	1	0	0	0	0	10	8	2.4	.3	.00	1	.05
FEB												
02...	--	--	--	--	--	--	--	.4	--	--	1	.01
02...	--	--	--	--	--	3	--	--	--	.00	--	--
MAY												
24...	--	--	--	--	--	--	--	.3	1.6	--	0	.00
24...	2	--	--	--	--	3	9	--	--	--	--	--
SEP												
11...	--	--	--	--	--	--	--	1.0	.1	--	1	.02
11...	5	--	--	--	--	20	10	--	--	--	--	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15011870 WHITE CREEK NEAR KETCHIKAN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), FEBRUARY TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									---	---	56	48
2									---	---	59	56
3									55	50	62	59
4									74	63	64	60
5									66	45	66	61
6									45	21	67	42
7									28	23	42	34
8									33	27	35	22
9									35	33	34	26
10									42	35	38	25
11									48	42	47	38
12									53	48	52	47
13									57	53	57	52
14									61	58	60	57
15									64	61	63	60
16									67	64	65	63
17									68	66	66	64
18									69	66	67	66
19									66	15	67	38
20									28	19	46	37
21									26	18	53	47
22									24	15	58	53
23									32	24	60	51
24									37	32	50	28
25									42	37	28	24
26									46	43	38	29
27									50	43	42	38
28									53	50	45	41
29									---	---	49	45
30									---	---	51	48
31									---	---	53	50
MONTH									74	15	67	22

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	54	52	18	17					---	---	36	34
2	56	49	19	18					---	---	39	36
3	52	46	19	18					---	---	39	37
4	48	34	19	18					---	---	39	37
5	38	26	19	18					---	---	40	39
6	35	29	19	18					32	23	39	27
7	32	20	19	18					26	20	29	28
8	33	24	31	18					31	26	---	---
9	35	11	29	22					35	31	---	---
10	24	11	24	20					36	27	---	---
11	31	24	26	12					37	27	66	63
12	34	31	25	15					39	37	68	45
13	37	32	22	17					39	28	53	44
14	38	35	20	18					29	23	52	26
15	42	38	20	14					35	29	30	25
16	45	18	19	14					40	38	32	26
17	46	42	22	13					40	27	39	32
18	45	38	19	14					36	27	44	39
19	37	27	21	14					39	37	44	19
20	30	32	25	14					39	37	28	25
21	28	22	---	---					40	39	30	27
22	26	18	---	---					40	38	36	30
23	18	18	---	---					41	39	40	35
24	24	17	---	---					41	35	43	40
25	22	18	---	---					37	31	47	43
26	26	18	---	---					38	37	51	47
27	19	18	---	---					41	37	51	48
28	19	18	---	---					41	40	48	25
29	18	17	---	---					40	35	32	24
30	18	17	---	---					40	32	31	27
31	---	---	---	---					36	29	---	---
MONTH	56	11							41	20	68	19

15011870 WHITE CREEK NEAR KETCHIKAN--Continued

TEMPERATURE (DEG. C) OF WATER, FEBRUARY TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									---	---	.0	.0
2									.0	.0	.0	.0
3									.0	.0	.0	.0
4									1.0	.0	.0	.0
5									1.0	.0	.0	.0
6									.5	.0	.0	.0
7									1.0	.0	.5	.0
8									1.0	.5	.0	.0
9									1.0	.0	.5	.0
10									1.0	.0	1.0	.0
11									1.0	.0	1.5	.0
12									.0	.0	1.0	.0
13									.0	.0	1.0	.0
14									1.0	.0	2.0	.0
15									2.0	.5	1.0	.0
16									1.5	.0	2.5	.0
17									1.0	.0	2.5	.0
18									1.5	.0	2.0	.5
19									1.0	.0	1.0	.0
20									.5	.0	1.5	.0
21									1.0	.0	2.0	.0
22									.5	.0	2.5	.0
23									.5	.0	2.0	.5
24									.5	.0	1.5	.0
25									.5	.0	.5	.0
26									.5	.0	1.0	.0
27									.5	.0	2.0	.0
28									.5	.0	2.0	.0
29									---	---	2.5	.0
30									---	---	2.5	.0
31									---	---	2.5	.5
MONTH									2.0	.0	2.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.5	.5									---	---
2	3.0	.5									---	---
3	2.5	.0									---	---
4	3.0	.5									---	---
5	2.5	.0									---	---
6	2.0	.0									---	---
7	.5	.0									---	---
8	1.5	.0									---	---
9	.0	.0									---	---
10	1.0	.0									---	---
11	1.5	.0									9.5	8.0
12	1.5	.0									8.5	7.0
13	2.0	.0									9.0	8.0
14	2.5	.0									9.0	8.0
15	2.5	.0									8.0	7.0
16	2.5	.0									7.5	6.5
17	2.5	.5									8.0	6.5
18	3.0	.0									8.0	6.0
19	2.5	.0									8.0	7.0
20	1.5	.0									7.0	6.5
21	2.0	.0									7.0	6.0
22	---	---									7.0	5.5
23	---	---									7.5	6.0
24	---	---									7.0	6.0
25	---	---									7.5	5.5
26	---	---									7.5	5.5
27	---	---									7.0	6.5
28	---	---									8.5	7.0
29	---	---									7.5	7.0
30	---	---									8.0	7.0
31	---	---									---	---

15011880 KETA RIVER NEAR KETCHIKAN

LOCATION.--Lat 55°21'13", long 130°26'56", in SW¼NE¼ sec.24, T.75 S., R.98 E., Hydrologic Unit 19060000, in Tongass National Forest, on left bank 1.6 mi (2.6 km) upstream from mouth at head of Boca de Quadra and 45 mi (72 km) east of Ketchikan.

DRAINAGE AREA.--74.2 mi² (193 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Water-discharge records good. Satellite telemeter at station.

EXTREMES FOR CURRENT PERIOD.--September 1977: Maximum discharge during period, 2,950 ft³/s (83.5 m³/s) Sept. 22, gage height, 4.72 ft (1.439 m); minimum daily, 153 ft³/s (4.33 m³/s) Sept. 29.

Water year 1978: Maximum discharge, 17,000 ft³/s (481 m³/s) Oct. 11, gage height, 7.58 ft (2.310 m), from rating curve extended above 3,200 ft³/s (91 m³/s) on basis of slope-conveyance study at gage height 6.23 ft (1.899 m); minimum daily, 76 ft³/s (2.15 m³/s).

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST AND SEPTEMBER 1977
MEAN VALUES

DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	AUG	SEP
1	238	6	380	11	290	16	208	21	230	26	---	222
2	197	7	291	12	692	17	186	22	1410	27	---	188
3	183	8	680	13	782	18	171	23	546	28	---	165
4	212	9	842	14	358	19	197	24	282	29	---	153
5	295	10	410	15	252	20	274	25	204	30	494	522
										31	327	---

SEPTEMBER TOTAL - 11060 MEAN - 369 MAX - 1410 MIN - 153 CFSM - 4.98 IN. - 5.55 AC-FT - 21940

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	752	414	287	76	79	145	180	885	1220	554	420	803
2	340	375	212	84	86	128	175	988	1540	449	427	473
3	232	352	175	96	98	118	186	735	1640	437	448	433
4	240	314	148	85	116	114	228	554	1510	462	417	364
5	283	310	135	78	167	109	357	483	1320	597	593	299
6	191	348	120	96	483	122	409	461	1350	610	1590	265
7	348	335	110	96	523	287	494	494	1290	605	6410	238
8	517	283	105	116	399	414	429	640	1300	574	1630	216
9	344	234	100	116	299	361	1340	599	1030	526	823	200
10	399	228	100	112	238	348	1020	592	1010	535	881	242
11	9570	2470	115	107	180	228	494	668	984	606	932	248
12	5540	1080	150	101	150	175	409	841	957	635	564	224
13	3150	867	385	100	139	155	344	759	912	681	576	510
14	1460	949	592	96	120	143	302	816	895	525	1530	1140
15	3980	579	424	91	110	137	248	931	902	678	933	2060
16	2950	380	175	88	105	139	225	978	948	1610	556	1530
17	4570	287	139	87	110	137	209	1040	1460	961	815	779
18	1870	221	122	85	120	130	221	775	891	617	1010	471
19	978	186	114	84	385	157	344	894	658	526	629	2050
20	529	165	109	98	791	283	647	921	881	591	479	1560
21	560	155	105	122	599	215	767	697	1040	625	413	1370
22	7280	150	101	126	1130	165	735	751	951	563	422	872
23	1390	145	101	155	455	155	767	859	926	557	375	569
24	876	140	96	727	299	272	791	867	899	500	357	411
25	1130	139	96	1150	234	586	833	885	615	434	734	334
26	2010	137	91	424	197	375	1020	931	613	423	474	275
27	1590	155	90	261	175	310	1220	1250	1090	383	445	262
28	1070	314	87	206	157	269	816	1150	760	329	346	731
29	728	712	87	165	---	231	566	841	639	311	337	1680
30	592	470	85	120	---	212	554	754	576	342	510	1310
31	488	---	82	92	---	194	---	915	---	397	1100	---
TOTAL	55957	12894	4838	5440	7944	6814	16330	24954	30727	17643	27176	21919
MEAN	1805	430	156	175	284	220	544	805	1024	569	877	731
MAX	9570	2470	592	1150	1130	586	1340	1250	1640	1610	6410	2060
MIN	191	137	82	76	79	109	175	461	576	311	337	200
CFSM	24.3	5.80	2.10	2.36	3.83	2.97	7.34	10.9	13.8	7.67	11.8	9.86
IN.	28.07	6.47	2.43	2.73	3.99	3.42	8.19	12.52	15.42	8.85	13.63	11.00
AC-FT	111000	25580	9600	10790	15760	13520	32390	49500	60950	34990	53900	43480

WTR YR 1978 TOTAL 232636 MEAN 637 MAX 9570 MIN 76 CFSM 8.59 IN 116.71 AC-FT 461400

15011880 KETA RIVER NEAR KETCHIKAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September, 1978.
SPECIFIC CONDUCTANCE: May to September, 1978.

INSTRUMENTATION.--Mini-water-quality monitor in conjunction with satellite telemeter.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURES: Maximum, 14.5°C July 31, Aug. 2; minimum 3.0°C May 28.
SPECIFIC CONDUCTANCE: Maximum, 36 micromhos/cm Sept. 4-6; minimum, 9 micromhos/cm Aug. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT												
05...	1300	1/80020	363	24	--	--	6.0	10	11.7	4	12	5
05...	1301	2/ 9815	363	--	--	--	--	--	--	--	--	--
NOV												
30...	1200	80020	481	26	6.4	--	1.0	9	13.9	8	9	4
FEB												
01...	1300	80020	79	35	6.6	-2.5	.0	2	13.0	6	10	3
01...	1301	9815	79	--	--	--	--	--	--	--	--	--
MAY												
25...	1115	80020	867	21	6.2	10.0	4.5	4	12.5	9	6	2
25...	1116	9815	867	--	--	--	--	--	--	--	--	--
SEP												
11...	1500	80020	241	33	6.3	--	10.5	0	10.3	ND	8	1
11...	1501	9815	241	--	--	--	--	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
05...	4.3	.2	.6	.3	8	0	2.9	.7	.0	2.9	18	17
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	2.8	.3	.6	.2	5	0	3.4	1.2	.0	2.9	13	15
FEB												
01...	3.7	.3	.6	.3	9	0	2.6	.8	.1	3.9	15	17
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
25...	2.3	.1	.3	.1	5	0	5.1	.6	.0	2.1	7	13
25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
11...	3.0	.0	.6	.2	8	0	3.6	.4	.0	3.0	12	15
11...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT												
05...	.13	--	--	--	--	.02	--	--	--	--	--	--
05...	--	--	--	--	--	--	ND	0	--	<2	0	--
NOV												
30...	.10	.00	.10	.10	.00	.00	1	1	500	0	0	0
FEB												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	ND	--	--	ND	--	ND
MAY												
25...	.03	--	--	--	--	.01	--	--	--	--	--	--
25...	--	--	--	--	--	--	ND	1	--	ND	1	ND
SEP												
11...	.04	--	--	--	--	.00	--	--	--	--	--	--
11...	--	--	--	--	--	--	ND	1	--	2	0	ND

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15011880 KETA RIVER NEAR KETCHIKAN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, DISSOLVED (UG/L AS NI)
OCT												
05...	--	--	--	40	--	--	--	0	--	--	--	--
05...	ND	ND	2	--	2000	ND	0	--	ND	ND	ND	ND
NOV												
30...	ND	1	2	80	2000	--	0	4	ND	0	ND	--
FEB												
01...	--	--	--	80	--	--	--	0	--	--	--	--
01...	--	ND	--	--	--	<5	--	--	--	ND	--	ND
MAY												
25...	--	--	--	20	--	--	--	0	--	--	--	--
25...	ND	ND	3	--	1200	ND	2	--	--	ND	ND	ND
SEP												
11...	--	--	--	50	--	--	--	10	--	--	--	--
11...	2	ND	3	--	3100	ND	2	--	--	<50	23	ND

DATE	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	23	22
05...	2	--	0	--	0	27	7	--	--	.00	--	--
NOV												
30...	1	0	0	0	0	0	5	2.7	.1	.00	1	1.3
FEB												
01...	--	--	--	--	--	--	--	.8	--	--	1	.21
01...	--	--	--	--	--	1	--	--	--	.00	--	--
MAY												
25...	--	--	--	--	--	--	--	.6	.1	--	0	.00
25...	1	--	--	--	--	ND	5	--	--	--	--	--
SEP												
11...	--	--	--	--	--	--	--	1.2	.9	--	2	1.3
11...	6	--	--	--	--	<10	12	--	--	--	--	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15011880 KETA RIVER NEAR KETCHIKAN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), MAY TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	13	11	15	14	30	25	25	22
2			---	---	12	10	16	15	27	23	33	25
3			---	---	11	10	16	15	24	19	35	32
4			---	---	12	10	16	15	20	17	36	33
5			---	---	12	10	15	14	19	16	36	32
6			---	---	12	10	14	13	15	12	36	30
7			---	---	12	10	14	13	11	9	31	27
8			---	---	12	11	14	13	14	10	30	27
9			---	---	13	11	15	14	16	14	29	26
10			---	---	13	12	15	14	16	15	27	25
11			---	---	13	12	14	13	20	14	25	24
12			---	---	13	12	14	13	23	18	26	25
13			---	---	13	12	13	13	24	22	26	22
14			---	---	13	12	14	13	22	16	23	21
15			---	---	13	12	14	13	22	20	20	16
16			---	---	13	11	12	10	25	22	17	16
17			---	---	11	10	14	12	27	23	19	17
18			---	---	13	11	14	14	26	23	20	19
19			---	---	14	13	18	15	27	22	22	17
20			---	---	14	12	15	13	27	25	19	17
21			---	---	12	11	14	13	27	25	19	17
22			---	---	12	11	14	14	26	24	19	18
23			---	---	12	11	18	14	28	25	20	19
24			---	---	12	11	15	14	28	26	23	20
25			---	---	14	12	17	15	27	22	24	23
26			14	14	14	13	19	16	24	22	26	24
27			14	11	13	11	20	18	25	23	26	25
28			14	12	13	12	20	18	30	25	27	25
29			15	14	14	13	22	19	30	26	27	18
30			15	15	14	13	25	20	30	27	19	18
31			15	13	---	---	28	24	31	24	---	---
MONTH					14	10	28	10	31	9	36	16

15011880 KETA RIVER NEAR KETCHIKAN--Continued

TEMPERATURE (DEG. C) OF WATER, MAY TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	8.0	4.0	8.0	6.0	13.0	10.0	11.5	9.5
2			---	---	8.5	4.0	9.5	5.5	14.5	10.0	11.5	9.5
3			---	---	8.5	4.0	9.0	7.0	14.0	10.5	11.5	9.5
4			---	---	8.5	4.0	11.0	6.5	12.0	10.5	12.0	9.0
5			---	---	8.5	4.5	10.5	8.0	10.5	9.5	12.5	9.0
6			---	---	9.5	4.5	11.0	8.0	10.0	9.5	12.0	9.0
7			---	---	7.0	4.5	11.5	8.0	10.5	9.5	10.0	9.5
8			---	---	6.0	5.0	9.5	8.0	13.0	9.0	11.5	9.0
9			---	---	7.5	4.5	10.5	7.5	11.0	10.0	11.5	9.0
10			---	---	7.0	5.0	13.0	8.5	11.0	9.5	11.0	10.0
11			---	---	7.5	5.0	11.0	9.0	11.5	9.5	11.5	9.5
12			---	---	9.0	4.5	9.5	8.5	12.0	9.5	10.5	10.0
13			---	---	6.5	5.0	10.0	8.0	10.5	10.0	11.0	10.0
14			---	---	8.0	5.5	10.0	8.0	10.0	9.5	10.0	9.5
15			---	---	6.5	5.5	9.0	8.0	10.0	9.0	9.5	8.5
16			---	---	10.0	5.5	8.5	7.5	12.5	9.0	9.0	8.0
17			---	---	7.5	5.5	9.5	7.0	10.5	9.5	10.0	8.0
18			---	---	7.0	4.5	9.5	7.0	11.0	9.5	9.5	7.5
19			---	---	8.0	5.5	13.0	7.5	11.5	9.5	9.0	8.5
20			---	---	7.5	6.0	12.0	8.5	11.5	8.5	9.0	8.5
21			---	---	9.5	6.0	13.5	8.5	10.5	9.5	8.5	8.0
22			---	---	10.5	5.5	13.5	9.0	11.5	9.5	9.0	7.5
23			---	---	10.5	6.5	11.0	9.0	12.5	9.5	9.5	8.0
24			---	---	8.5	6.5	10.5	8.5	12.0	9.5	9.5	7.5
25			---	---	7.5	6.0	13.0	9.0	11.5	10.0	9.5	8.0
26			5.0	4.5	7.5	6.0	13.0	9.0	11.5	9.5	9.5	7.5
27			4.5	3.5	7.5	6.0	11.0	9.5	12.5	10.0	9.5	9.0
28			6.0	3.0	10.5	6.0	12.0	8.5	12.5	9.5	10.0	9.0
29			6.0	3.5	10.5	6.0	13.5	8.5	11.5	10.5	10.0	9.5
30			7.5	3.5	8.5	6.5	14.0	9.5	11.5	10.5	10.0	9.0
31			8.5	4.0	---	---	14.5	9.5	11.5	10.5	---	---
MONTH					10.5	4.0	14.5	5.5	14.5	8.5	12.5	7.5
YEAR	14.5											

BEST DOCUMENT AVAILABLE

15022000 HARDING RIVER NEAR WRANGELL

LOCATION.--Lat 56°12'48", long 131°38'12", in SW¼SW¼ sec.22, T.65 S., R.89 E., Hydrologic Unit 19060000, in Tongass National Forest, on right bank 1 mi (1.6 km) upstream from mouth on north shore of Bradfield Canal, 4 mi (6 km) downstream from Fall Lake, and 34 mi (55 km) southeast of Wrangell.

DRAINAGE AREA.--67.4 mi² (174.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WSP 1640: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m), by barometer. Prior to Sept. 30, 1960, at site 300 ft (90 m) upstream at datum 0.12 ft (0.037 m) lower. Oct. 1, 1960, to Aug. 23, 1975, at prior site and present datum.

REMARKS.--Records fair except those for Nov. 15 through Mar. 22, which are poor.

AVERAGE DISCHARGE.--27 years, 730 ft³/s (20.67 m³/s), 147.08 in/yr (3,736 mm/yr), 528,900 acre-ft/yr (652 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) Oct. 14, 1961, gage height, 16.22 ft (4.944 m) site then in use, from rating curve extended above 5,000 ft³/s (140 m³/s) on basis of slope-area measurement at gage height, 13.90 ft (4.237 m); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 11	2330	*5,000	142	*10.37	3.161	Aug. 8	0030	4,660	132	10.11	3.082

Minimum daily discharge, 66 ft³/s (1.87 m³/s) Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	607	484	222	77	78	125	148	582	949	837	822	871
2	446	347	185	79	68	115	147	750	1260	718	891	615
3	370	323	150	85	74	108	165	649	1550	706	958	561
4	342	332	135	92	84	100	173	498	1530	819	907	452
5	367	352	120	80	100	97	195	413	1350	911	847	409
6	313	342	110	74	130	115	236	374	1260	915	1640	396
7	430	332	100	85	180	160	295	361	1360	896	2790	385
8	675	280	95	93	250	240	335	451	1300	851	2720	356
9	457	235	90	99	210	360	396	447	1240	764	1460	346
10	425	210	86	100	170	330	629	464	956	831	1590	344
11	3390	900	83	102	135	280	411	522	862	948	1190	376
12	2980	646	81	94	120	230	351	569	956	1080	868	415
13	1850	616	79	86	105	200	304	583	1030	1300	921	758
14	1540	592	81	81	95	170	245	578	1050	1090	1300	831
15	2010	552	83	77	86	140	206	695	926	1130	964	2040
16	1840	364	88	74	97	123	184	860	883	1960	702	1320
17	2610	303	100	71	105	115	167	890	1570	1250	1120	709
18	1870	261	160	68	115	105	162	690	1070	843	1540	693
19	1020	201	195	66	150	130	178	1110	731	727	841	1110
20	630	170	230	73	230	155	245	931	750	803	674	1340
21	536	150	265	94	430	200	378	692	974	878	679	1110
22	1760	140	200	120	640	150	386	638	1010	861	887	877
23	1120	137	160	160	540	110	412	721	1030	1060	626	567
24	682	133	130	250	350	180	512	746	1040	921	583	451
25	554	300	110	460	230	325	543	807	814	873	1140	372
26	964	170	96	300	180	284	831	835	857	881	829	322
27	1090	140	90	220	150	210	1090	977	1280	737	660	296
28	893	220	84	150	135	210	779	977	929	869	598	700
29	675	436	80	125	---	187	546	757	752	705	660	1630
30	566	300	78	105	---	161	458	650	823	787	895	936
31	474	---	76	92	---	149	---	716	---	783	828	---
TOTAL	33502	9876	3850	3732	5237	5580	11107	20941	32180	28574	33050	21186
MEAN	1081	329	124	120	187	180	370	676	1073	922	1066	706
MAX	3390	900	265	460	640	360	1090	1110	1570	1960	2790	2040
MIN	313	133	76	66	68	97	147	361	731	705	583	296
CFSM	16.0	4.88	1.84	1.78	2.77	2.67	5.49	10.0	15.9	13.7	15.8	10.5
IN.	18.49	5.45	2.12	2.06	2.89	3.08	6.13	11.56	17.76	15.77	18.24	11.69
AC-FT	66450	19590	7640	7400	10390	11070	22030	41540	63830	56680	65550	42020

CAL YR 1977 TOTAL 244471 MEAN 670 MAX 3980 MIN 76 CFSM 9.94 IN 134.93 AC-FT 484900
WTR YR 1978 TOTAL 208815 MEAN 572 MAX 3390 MIN 66 CFSM 8.49 IN 115.25 AC-FT 414200

15022000 HARDING RIVER NEAR WRANGELL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-72 and 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
MAR					
23...	1200	126	36	6.8	2.0
JUL					
18...	1210	820	15	--	9.0

15024750 GOAT CREEK NEAR WRANGELL

LOCATION.--Lat 56°39'40", long 131°58'14", in NE¼NE¼ sec.23, T.60 S., R.85 E., Hydrologic Unit 19060000, in Tongass National Forest, on left bank 0.4 mi (0.6 km) upstream from mouth and 20 mi (32.2 km) northeast of Wrangell.

DRAINAGE AREA.--17.3 mi² (44.8 km²).

PERIOD OF RECORD.--August 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 35 ft (11 m), from topographic map.

REMARKS.--Records good except those for Nov. 19 to Mar. 19, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s (53.0 m³/s) Nov. 3, 1976, gage height, 3.85 ft (1.173 m), from rating curve extended above 720 ft³/s (20 m³/s); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 18, 19, 1977 and Jan. 17-22, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s (42.2 m³/s) Oct. 11 (2245 hrs), gage height, 3.56 ft (1,085 m), from rating curve extended above 720 ft³/s (20 m³/s); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 17-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	80	50	16	143	31	25	185	334	231	162	125
2	105	72	43	17	106	29	26	217	408	212	177	110
3	85	66	39	18	100	27	29	160	478	280	180	96
4	74	71	34	19	108	27	30	129	489	314	193	89
5	70	68	31	16	167	26	32	116	462	284	417	85
6	62	68	29	15	82	29	34	113	422	266	556	83
7	89	63	27	16	33	34	48	115	437	256	510	79
8	132	57	26	17	28	42	56	139	483	237	318	76
9	103	51	24	18	24	68	63	149	432	220	287	76
10	108	48	22	20	21	64	103	162	342	223	228	76
11	830	68	21	21	20	57	79	177	295	231	185	93
12	998	66	21	20	20	51	64	201	295	270	170	133
13	612	72	20	19	20	44	56	215	314	270	190	167
14	437	92	21	18	20	39	51	217	338	223	177	354
15	678	79	21	16	21	34	48	250	314	253	149	256
16	632	63	22	15	21	31	45	310	330	326	195	162
17	789	55	23	14	23	29	43	284	544	253	228	119
18	517	50	25	14	25	27	43	253	385	195	180	266
19	277	47	25	14	29	29	47	346	273	177	149	322
20	163	42	32	14	37	28	60	302	270	217	141	318
21	139	38	38	14	47	28	79	237	287	236	141	253
22	559	36	26	14	58	27	97	226	284	228	133	172
23	380	38	23	24	70	26	120	256	291	223	125	129
24	198	45	20	29	58	28	137	266	280	201	131	102
25	140	62	18	71	51	30	141	277	228	182	129	85
26	206	46	17	40	43	30	193	287	220	167	126	81
27	209	37	16	36	37	30	250	354	286	153	116	201
28	169	41	16	32	34	29	206	363	260	156	129	354
29	142	48	15	29	---	28	160	284	206	147	145	259
30	119	50	15	26	---	26	151	243	206	147	149	259
31	98	---	16	24	---	26	---	256	---	153	151	---
TOTAL	9267	1719	776	676	1446	1054	2516	7089	10171	6929	6273	4979
MEAN	299	57.3	25.0	21.8	51.6	34.0	83.9	229	339	224	202	166
MAX	998	92	50	71	167	68	250	363	544	326	556	354
MIN	62	36	15	14	20	26	25	113	206	147	116	76
CFSM	17.3	3.31	1.45	1.26	2.98	1.97	4.85	13.2	19.6	12.9	11.7	9.60
IN.	19.93	3.70	1.67	1.45	3.11	2.27	5.41	15.24	21.87	14.90	13.49	10.71
AC-FT	18380	3410	1540	1340	2870	2090	4990	14060	20170	13740	12440	9880

CAL YR 1977 TOTAL 55755 MEAN 153 MAX 998 MIN 14 CFSM 8.84 IN 119.88 AC-FT 110600
WTR YR 1978 TOTAL 52895 MEAN 145 MAX 998 MIN 14 CFSM 8.38 IN 113.73 AC-FT 104900

BEST DOCUMENT AVAILABLE

15024800 STIKINE RIVER NEAR WRANGELL
(National stream-quality accounting network station)

LOCATION.--Lat 56°42'26", long 132°08'00", in NW¼NE¼ sec.2, T.60 S., R.84 E., Hydrologic Unit 19060000, on right bank about 10 mi (16 km) upstream from mouth near Point Rothsay, 11 mi (18 km) west of Alaska-British Columbia boundary, and 18 mi (29 km) northeast of Wrangell.

DRAINAGE AREA.--19,920 mi^2 (51,000 km^2), approximately, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 25 ft (7.6 m), from topographic map.

REMARKS.--Water-discharge records fair except those for Nov. 21 to Apr. 26, which are poor. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 219,000 ft^3/s (6,200 m^3/s) Aug. 12, 1976, gage height, 25.22 ft (7.687 m); minimum daily, 4,500 ft^3/s (127 m^3/s) Mar. 20 and 21, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 156,000 ft^3/s (4,410 m^3/s), July 12, gage height, 22.14 ft (6.748 m); minimum daily, 4,500 ft^3/s (127 m^3/s) Mar. 20 and 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31700	21700	14000	5900	5800	4900	4800	25600	54600	93900	116000	92000
2	27200	20000	13000	5900	5800	4900	4900	28400	66500	85200	132000	81200
3	24000	18300	12000	6000	5700	4900	4900	27400	85000	89800	147000	71000
4	22000	17700	11000	6000	5700	4900	5000	24900	99800	88100	152000	65700
5	20800	17400	10000	6000	5800	4800	5200	23200	111000	89200	135000	62900
6	19800	17600	9000	6000	5800	4800	5400	22100	116000	101000	123000	61800
7	19700	17500	8300	6000	5900	4800	5600	21700	124000	109000	130000	60600
8	21900	16500	8100	6100	6000	4800	6000	22800	130000	119000	145000	58400
9	20500	15300	7800	6200	6000	4800	6400	24100	126000	122000	146000	54800
10	19200	13700	7600	6500	5900	4700	6800	25300	114000	128000	141000	52500
11	38600	16100	7400	6500	5800	4700	6600	26900	100000	141000	124000	55400
12	82500	18400	7300	6300	5600	4600	6500	29800	96000	151000	111000	59200
13	71400	20800	7300	6100	5500	4600	6400	32500	98400	149000	107000	65100
14	53300	19400	7100	5900	5400	4600	6200	33300	102000	130000	108000	67700
15	65100	18800	7100	5800	5300	4600	6200	35500	103000	115000	103000	75100
16	78700	17600	7000	5800	5200	4600	6200	40000	105000	111000	96900	61500
17	79500	16200	7000	5800	5200	4600	6400	42400	123000	104000	99600	46400
18	75900	13500	7100	5800	5400	4600	6800	40700	126000	96200	110000	39400
19	54600	12000	7100	5800	5500	4600	7700	43400	106000	94000	101000	42200
20	39200	11700	7200	5800	5600	4500	8600	45200	98400	99100	92300	58200
21	31900	11500	7400	5800	5600	4500	10000	42100	98200	116000	87400	52200
22	42700	11500	7400	5800	5600	4600	11500	40400	101000	126000	84600	44500
23	50200	11400	7500	5800	5500	4600	13000	41600	106000	129000	80600	36000
24	37600	11300	7500	5800	5300	4700	14000	43100	114000	120000	83300	31000
25	31600	11300	7500	5800	5200	4800	16000	45700	110000	109000	89300	28300
26	32000	11500	7400	6000	5100	4800	20000	48800	101000	106000	86900	25900
27	32400	11700	7300	6000	5000	4800	26000	52800	96900	101000	85000	24600
28	33000	12000	7200	6000	4900	4800	28000	56300	97200	96600	87800	28500
29	29500	12400	6900	5900	---	4800	26100	53000	95700	90100	88100	43600
30	27000	12500	6400	5800	---	4800	24300	49700	97100	93800	96900	47000
31	24300	---	6000	5800	---	4800	---	49700	---	103000	95900	---
TOTAL	1237800	457300	250900	184700	155100	146300	311500	1138400	3101800	3406000	3385600	1592700
MEAN	39930	15240	8094	5958	5539	4719	10380	36720	103400	109900	109200	53090
MAX	82500	21700	14000	6500	6000	4900	28000	56300	130000	151000	152000	92000
MIN	19200	11300	6000	5800	4900	4500	4800	21700	54600	85200	80600	24600
CFSM	2.01	.77	.41	.30	.28	.24	.52	1.84	5.19	5.52	5.48	2.67
IN.	2.31	.85	.47	.34	.29	.27	.58	2.13	5.79	6.36	6.32	2.97
AC-FT	2455000	907100	497700	366400	307600	290200	617900	2258000	6152000	6756000	6715000	3159000

CAL YR 1977 TOTAL 19593450 MEAN 53680 MAX 190000 MIN 6000 CFSM 2.70 IN 36.59 AC-FT 38860000
WTR YR 1978 TOTAL 15368100 MEAN 42100 MAX 152000 MIN 4500 CFSM 2.11 IN 28.70 AC-FT 30480000

15024800 STIKINE RIVER NEAR WRANGELL--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1976 to current year.

INSTRUMENTATION.--Temperature recorder since July 27, 1976.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature at sensor was compared with the average for the river by temperature cross section on Nov. 17, Apr. 27, June 15, and Aug. 25. A maximum variation of 1.9°C was found within the cross section. No record Apr. 11-26.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 11.0°C June 3, 12, and July 10, 1978; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 11.0°C June 3, 12, and July 10; minimum, 0.0°C on many days during winter period.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV 17...	1430	15500	170	7.8	.0	7.0	14.2	--	--	79	7
JAN 20...	1530	5800	--	--	.0	1.0	--	--	--	110	30
APR 28...	1330	35600	155	8.0	5.0	35	12.8	K3	--	65	16
JUN 15...	1605	103000	100	7.8	9.5	75	11.6	K4	--	47	6
AUG 21...	1630	88200	93	8.3	8.0	60	11.3	K5	80	43	4

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 17...	24	4.6	4.0	1.0	88	0	16	2.6	.1	6.4	90
JAN 20...	33	5.7	5.8	1.3	98	0	24	4.6	.1	7.7	130
APR 28...	21	3.0	2.5	1.0	60	0	14	2.3	.1	5.2	74
JUN 15...	15	2.2	1.8	.7	--	--	7.9	.4	.1	3.6	50
AUG 21...	14	1.8	1.7	.8	41	3	8.0	.8	.1	2.9	45

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
NOV 17...	102	.09	.01	--	--	--	.16	--	.02	.02
JAN 20...	131	.13	.01	--	--	--	.28	--	.01	.02
APR 28...	79	.30	.03	.28	.31	.16	.15	.61	.14	.00
JUN 15...	56	.05	.04	.01	.05	.00	.15	.10	.19	.01
AUG 21...	54	.04	.02	.21	.23	.12	.11	.27	.14	.00

K NON-IDEAL COLONY COUNT

15024800 STIKINE RIVER NEAR WRANGELL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
NOV 17...	1430	--	1	1	0	300	300	0	0	0	0
JAN 20...	1530	60	1	1	0	100	0	100	--	--	--
APR 28...	1330	--	0	0	0	100	100	0	--	--	--
AUG 21...	1630	--	1	0	1	300	0	300	--	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
NOV 17...	4	4	0	0	0	0	2	1	1	530	--
JAN 20...	0	0	0	0	0	0	7	4	3	150	--
APR 28...	0	0	0	1	1	0	16	11	5	3800	--
AUG 21...	10	10	0	1	1	0	18	16	2	4600	4400

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
NOV 17...	60	--	--	--	40	0	40	.0	.0	.0	--
JAN 20...	20	--	--	--	40	0	40	.0	.0	.0	2
APR 28...	70	--	--	--	110	90	20	.4	.0	.4	--
AUG 21...	160	53	49	4	130	120	10	.2	.0	.2	--

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 17...	--	1	0	1	0	0	0	8	2	6
JAN 20...	8	4	4	0	0	0	0	20	0	20
APR 28...	--	0	0	0	0	0	0	30	20	10
AUG 21...	--	0	0	0	0	0	0	30	30	0

15024800 STIKINE RIVER NEAR WRANGELL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 17...	--	3.3	.4	57	--	--	--	--	15	628
JAN 20...	.8	--	--	5	--	--	--	--	1	16
APR 28...	--	--	--	610	.784	1.57	.040	.000	153	14700
JUN 15...	1.3	--	--	69	--	--	--	--	276	76800
AUG 21...	2.3	1.8	.5	--	--	--	--	--	172	41800

DATE	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV 17...	--	--	--	--	--	85	97	100	--	--
JAN 20...	--	--	--	--	--	--	--	--	--	--
APR 28...	14	18	24	33	45	62	88	100	--	--
JUN 15...	12	18	25	32	38	46	55	76	98	100
AUG 21...	--	--	--	--	--	--	--	--	--	--

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO AUGUST 1978

		NOV 17,77	JAN 20,78	APR 28,78	JUN 15,78	AUG 21,78
DATE TIME		1430	1500	1330	1500	1630
TOTAL CELLS/ML		57	5	610	69	0
DIVERSITY:	DIVISION	0.0	0.0	0.9	0.0	0.0
	.CLASS	0.0	0.0	0.9	0.0	0.0
	..ORDER	0.0	0.0	0.9	0.0	0.0
	...FAMILY	1.7	0.0	1.4	1.6	0.0
	....GENUS	2.3	0.0	1.4	1.6	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..PENNALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	19	3	23#	33	--	-
...DIATOMACEAE										
....DIATOMA	6	10	--	-	38	6	--	-	--	-
...FRAGILARIACEAE										
....HANNAEA	6	10	--	-	38	6	--	-	--	-
....SYNEDRA	23#	40	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	6	10	--	-	--	-	23#	33	--	-
...NAVICULACEAE										
....NAVICULA	11#	20	5#	100	--	-	--	-	--	-
....STAURONEIS	6	10	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	95#	16	23#	33	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	420#	69	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

BEST DOCUMENT AVAILABLE

15024800 STIKINE RIVER NEAR WRANGELL--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.5	5.0	5.0	3.5	2.5	3.0	.0	.0	.0	1.0	1.0	1.0
2	5.0	4.5	5.0	2.5	2.5	2.5	.0	.0	.0	1.0	1.0	1.0
3	5.0	4.0	4.5	2.5	2.0	2.5	.0	.0	.0	1.0	1.0	1.0
4	4.5	4.0	4.5	2.5	2.5	2.5	.0	.0	.0	1.0	1.0	1.0
5	5.0	4.5	4.5	2.5	2.5	2.5	.0	.0	.0	1.0	1.0	1.0
6	4.5	4.5	4.5	2.5	1.0	2.0	.5	.5	.5	1.5	1.0	1.5
7	4.5	4.5	4.5	2.0	2.0	2.0	.5	.5	.5	1.5	1.0	1.0
8	4.5	4.0	4.5	2.0	1.5	2.0	.5	.5	.5	1.0	1.0	1.0
9	4.5	4.0	4.5	2.0	1.0	1.5	.5	.0	.5	1.0	1.0	1.0
10	4.5	4.0	4.0	2.5	1.0	2.0	.5	.5	.5	1.0	1.0	1.0
11	5.0	4.0	4.5	2.0	1.0	2.0	.5	.0	.0	1.0	1.0	1.0
12	5.0	4.0	4.5	2.5	.5	1.5	.0	.0	.0	1.0	1.0	1.0
13	4.0	4.0	4.0	2.0	1.0	1.5	.5	.0	.5	1.0	1.0	1.0
14	4.0	3.5	3.5	2.5	1.5	1.5	.0	.0	.0	1.0	1.0	1.0
15	4.0	4.0	4.0	2.5	2.0	2.0	.0	.0	.0	1.0	1.0	1.0
16	4.0	4.0	4.0	2.0	1.0	2.0	.5	.5	.5	1.0	1.0	1.0
17	4.0	4.0	4.0	2.0	.5	.5	.5	.5	.5	1.0	1.0	1.0
18	4.0	4.0	4.0	.5	.0	.5	.5	.5	.5	1.0	1.0	1.0
19	4.0	3.5	3.5	.5	.0	.5	.5	.5	.5	1.0	1.0	1.0
20	3.5	3.5	3.5	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
21	3.5	3.0	3.0	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
22	3.5	3.5	3.5	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
23	3.5	3.0	3.5	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
24	3.5	3.0	3.5	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
25	3.0	3.0	3.0	.0	.0	.0	.5	.5	.5	1.0	.0	1.0
26	3.5	3.0	3.5	.0	.0	.0	.5	.5	.5	1.0	1.0	1.0
27	3.5	3.5	3.5	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	1.0
28	3.5	3.0	3.5	.0	.0	.0	1.0	1.0	1.0	1.0	.0	1.0
29	3.5	3.5	3.5	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	1.0
30	3.5	3.5	3.5	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	1.0
31	3.5	3.5	3.5	---	---	---	1.0	1.0	1.0	1.0	1.0	1.0
MONTH	5.5	3.0	4.0	3.5	.0	1.0	1.0	.0	.5	1.5	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	1.5	5.5	5.0	5.0
2	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	1.5	5.5	4.5	5.0
3	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	2.0	6.0	4.5	5.5
4	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	2.0	7.0	5.5	6.0
5	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	2.0	7.0	6.0	6.5
6	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	2.0	7.5	6.0	6.5
7	1.0	.5	1.0	1.0	1.0	1.0	2.0	1.5	1.5	7.5	6.5	7.0
8	1.0	.5	1.0	1.0	1.0	1.0	2.0	1.5	1.5	7.5	6.5	7.0
9	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.5	2.0	8.5	6.5	7.5
10	1.0	1.0	1.0	1.0	.0	1.0	2.0	1.5	2.0	9.0	7.0	8.0
11	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.5	7.5	8.0
12	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.5	7.5	8.0
13	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.0	7.5	8.0
14	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.5	8.0	8.5
15	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.5	7.5	8.0
16	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.0	7.5	7.5
17	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.0	7.0	7.5
18	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.0	7.5	7.5
19	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.0	6.5	7.0
20	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	8.5	7.0	7.5
21	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.0	7.5	8.5
22	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.5	8.5	9.0
23	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.5	8.0	8.5
24	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.5	8.0	9.0
25	1.0	1.0	1.0	1.0	1.0	1.0	---	---	---	9.0	8.5	8.5
26	1.0	1.0	1.0	1.5	1.0	1.5	---	---	---	9.0	8.0	8.5
27	1.0	1.0	1.0	1.5	1.0	1.5	5.5	3.5	5.0	8.5	7.5	8.0
28	1.0	1.0	1.0	1.5	1.5	1.5	6.0	4.5	5.0	8.5	7.5	8.0
29	---	---	---	1.5	1.5	1.5	5.5	5.0	5.0	9.0	7.5	8.0
30	---	---	---	1.5	1.5	1.5	5.5	5.0	5.5	9.5	8.0	9.0
31	---	---	---	2.0	1.5	1.5	---	---	---	9.5	8.5	9.0
MONTH	1.0	.5	1.0	2.0	.0	1.0	6.0	1.5	3.0	9.5	4.5	7.5

15024800 STIKINE RIVER NEAR WRANGELL--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	8.5	8.5	8.5	8.0	8.0	9.0	8.5	9.0	7.5	6.5	7.0
2	10.0	8.0	9.0	8.0	8.0	8.0	9.0	8.5	8.5	7.0	6.5	7.0
3	11.0	9.0	10.0	8.0	6.5	7.5	9.0	8.5	8.5	7.5	6.5	7.0
4	10.0	9.5	9.5	8.5	6.5	7.0	8.5	8.0	8.5	8.0	7.0	7.5
5	10.0	9.0	9.5	9.5	8.5	9.0	8.0	8.0	8.0	8.5	7.5	8.0
6	10.5	9.0	10.0	9.0	8.5	9.0	8.0	7.5	7.5	8.5	8.0	8.0
7	10.0	9.0	9.5	10.0	9.0	9.5	7.5	6.5	7.0	8.0	6.5	7.5
8	9.5	9.0	9.0	10.0	9.5	10.0	7.5	6.0	7.0	8.5	7.0	7.5
9	10.0	9.0	9.0	10.0	9.0	9.5	7.5	7.0	7.5	8.0	7.0	7.5
10	9.5	9.0	9.5	11.0	10.0	10.5	7.5	7.0	7.0	7.5	7.0	7.0
11	10.0	8.5	9.0	10.5	10.0	10.0	8.5	7.5	8.0	7.5	7.0	7.0
12	11.0	9.5	10.0	10.0	9.5	10.0	8.5	8.0	8.0	7.5	7.0	7.5
13	10.5	9.5	10.0	9.5	8.5	9.0	8.0	7.5	8.0	7.0	6.5	7.0
14	10.0	9.0	9.5	9.0	8.5	8.5	8.0	7.0	7.5	7.0	6.5	7.0
15	10.0	9.5	10.0	8.5	7.5	8.0	8.5	7.5	8.0	6.5	6.0	6.0
16	10.5	9.5	10.0	8.5	7.5	8.0	9.0	8.0	8.5	6.5	5.5	6.0
17	10.5	9.0	9.5	8.5	8.0	8.5	8.5	7.5	8.5	7.0	6.0	6.5
18	9.0	8.5	9.0	9.5	8.5	9.0	8.5	7.5	8.0	6.5	6.0	6.5
19	9.5	8.5	9.0	10.0	9.0	9.5	8.5	7.5	8.0	6.5	6.0	6.5
20	9.5	9.0	9.0	10.0	9.5	9.5	8.0	8.0	8.0	6.0	4.5	5.5
21	10.5	9.0	9.5	10.5	9.5	10.0	8.0	8.0	8.0	5.5	5.0	5.5
22	10.5	10.0	10.0	10.0	9.0	9.5	9.0	7.5	8.0	6.0	5.5	5.5
23	10.5	9.5	10.0	9.5	8.5	9.0	9.0	8.0	8.5	6.0	5.5	6.0
24	10.0	9.5	10.0	8.5	8.0	8.5	9.0	8.5	8.5	6.5	5.5	6.0
25	9.5	9.0	9.5	9.0	8.0	8.5	8.5	7.5	8.0	6.5	6.0	6.0
26	9.0	8.0	9.0	9.5	8.0	8.5	8.0	7.5	8.0	6.5	5.5	6.0
27	8.5	8.0	8.5	9.0	8.0	8.5	9.0	8.0	8.0	6.0	5.5	6.0
28	9.5	8.0	9.0	8.5	8.0	8.5	8.5	8.0	8.5	6.0	5.5	5.5
29	10.0	9.5	9.5	9.5	8.5	9.0	8.0	7.5	8.0	6.0	4.5	5.5
30	9.5	8.5	9.0	9.5	8.5	9.0	7.5	7.0	7.5	5.5	5.0	5.5
31	---	---	---	9.5	8.5	9.0	7.0	7.0	7.0	---	---	---
MONTH	11.0	8.0	9.5	11.0	6.5	9.0	9.0	6.0	8.0	8.5	4.5	6.5
YEAR	11.0	.0	4.5									

15028300 FARRAGUT RIVER NEAR PETERSBURG

LOCATION.--57°10'24", long 133°06'36", in NE¼SW¼ sec.24, T.54 S., R.77 E., Hydrologic Unit 19060000, in Tongass National Forest, on left bank 2.25 mi (3.6 km) upstream from mouth and 26 mi (42 km) from Petersburg.

DRAINAGE AREA.--151 mi² (391 km²).

WATER-DISCHARGE RECORDS

PERIOD OF Record.--June 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 25 ft (7.6 m), from topographic map.

REMARKS.--Records good except those for Dec. 5 to Feb. 28, which are poor.

EXTREMES FOR CURRENT PERIOD.--June to September 1977: Maximum discharge during period, 10,700 ft³/s (302 m³/s) Sept. 12, gage height, 11.14 ft (3.395 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) minimum daily, 909 ft³/s (25.7 m³/s) Sept. 28.

Water year 1978: Maximum discharge, 7,520 ft³/s (213 m³/s) Oct. 15, gage height, 9.90 ft (3.018 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s); minimum daily 155 ft³/s (4.39 m³/s) Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	2470	2710	1400
2									---	2510	2510	1290
3									---	2650	2600	1220
4									---	2330	3010	1210
5									---	2180	3380	1230
6									---	2050	3500	1240
7									---	2150	3390	1310
8									---	2510	3440	2740
9									---	2970	3610	2700
10									---	3270	3640	2470
11									---	3030	3690	3830
12									---	3190	3630	7070
13									---	3190	3510	5750
14									---	3280	3780	3560
15									---	3990	3760	2620
16									---	3780	3670	2030
17									---	2970	3500	1690
18									---	2430	3630	1470
19									---	2280	3720	1440
20									---	2170	3880	1350
21									---	2090	3940	1260
22									---	2140	3550	3970
23									---	2050	3090	2490
24									---	2860	2550	1750
25										3180	2110	1400
26									2420	3600	1910	1190
27									2230	3470	1970	1050
28									2680	3370	1920	909
29									2620	3330	1830	1060
30									2600	3100	1790	1880
31									---	3090	1600	---
TOTAL									---	87680	94820	64579
MEAN									---	2828	3059	2153
MAX									---	3990	3940	7070
MIN									---	2050	1600	909
CFSM									---	18.7	20.3	14.3
IN.									---	21.60	23.36	15.91
AC-FT									---	173900	188100	128100

15028300 FARRAGUT RIVER NEAR PETERSBURG--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	878	733	170	170	260	265	1630	2340	1930	2520	2220
2	878	719	482	178	155	244	270	1940	2590	1680	2920	1790
3	742	649	405	190	178	246	280	1250	2980	3060	3140	1530
4	635	970	346	205	210	215	306	1000	2950	3020	3080	1390
5	584	851	301	170	245	208	290	886	2650	2960	2740	1360
6	552	878	278	175	380	228	315	785	2670	2790	3000	1320
7	854	758	255	188	450	485	676	782	2800	2700	3490	1280
8	1120	635	235	200	540	743	613	845	3270	2470	4450	1180
9	719	539	215	215	380	567	970	777	2610	2370	4030	1150
10	712	485	200	240	315	508	2010	797	2270	2540	4050	1130
11	3760	814	188	225	280	373	783	859	2030	2630	3210	1180
12	4880	889	182	207	250	301	622	969	1970	3000	2740	1220
13	2910	1050	180	196	230	273	563	975	2070	2920	2550	1550
14	3550	1060	181	188	205	255	489	935	1950	2380	3260	1820
15	6490	986	190	177	198	237	412	1030	1690	3360	3260	4000
16	3820	830	210	170	220	301	392	1140	1760	3480	2700	3400
17	4260	649	240	164	250	280	355	1280	3950	2670	3330	1300
18	2920	527	235	155	280	263	367	1280	2570	2160	3900	1100
19	1390	463	395	168	380	312	399	2170	2030	2020	2790	1400
20	1320	405	465	190	490	485	474	1490	2770	2280	2330	1750
21	1720	376	510	230	440	395	633	1170	3080	2460	2340	2300
22	4110	376	355	260	640	340	711	1150	2760	2540	2050	1550
23	2220	395	290	380	540	278	714	1200	2500	2650	1920	1180
24	1440	373	240	535	455	535	698	1230	2260	2660	1910	870
25	1310	449	220	660	385	635	770	1320	1960	2590	1910	720
26	1820	695	285	680	340	500	1610	1460	2230	2290	1740	640
27	2460	402	198	360	310	432	1510	1670	2690	2080	1810	820
28	1820	760	190	310	285	389	1130	1630	2240	1960	1790	1500
29	1600	867	180	275	---	337	925	1560	1970	1890	2220	3000
30	1250	889	170	240	---	288	1040	1300	1880	2010	2460	2050
31	1060	---	165	210	---	275	---	1370	---	2250	2430	---
TOTAL	64016	20537	8639	7831	9193	11188	20592	37880	73490	77800	86070	47620
MEAN	2065	685	279	253	328	361	686	1222	2450	2510	2776	1587
MAX	6490	1060	733	660	640	743	2010	2170	3950	3480	4450	4000
MIN	552	373	165	155	155	208	265	777	1690	1680	1740	640
CFSM	13.7	4.54	1.85	1.68	2.17	2.39	4.54	8.09	16.2	16.6	18.4	10.5
IN.	15.77	5.06	2.13	1.93	2.26	2.76	5.07	9.33	18.10	19.17	21.20	11.73
AC-FT	127000	40740	17140	15530	18230	22190	40840	75130	145800	154300	170700	94450

WTR YR 1978 TOTAL 464856 MEAN 1274 MAX 6490 MIN 155 CFSM 8.44 IN 114.52 AC-FT 922000

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
JUL				
23...	1230	2690	14	8.5

15050000 GOLD CREEK AT JUNEAU

LOCATION.--Lat 58°18'25", long 134°24'05", City and Borough of Juneau, Hydrologic Unit 19060000, on left bank 10 ft (3 m) downstream from highway bridge, 150 ft (46 m) upstream from Alaska Electric Light and Power Company dam and diversion, 0.5 mi (0.8 km) northeast of Juneau, and 1 mi (1.6 km) upstream from mouth at Gastineau Channel.

DRAINAGE AREA.--9.76 mi² (25.28 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1916 to December 1920 (monthly discharge only), October 1946 to September 1948, October 1949 to current year.

REVISED RECORDS.--WSP 1372: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 245 ft (74.7 m), from topographic map. July 20, 1916 to Dec. 31, 1920, at site 50 ft (15 m) upstream at different datum. Sept. 11, 1946 to Sept. 30, 1948, nonrecording gage at site 0.7 mi (1.1 km) downstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--35 years, 107 ft³/s (3.03 m³/s), 148.88 in/yr (3,782 mm/yr), 77,520 acre ft/yr (95.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,650 ft³/s (75.0 m³/s) Aug. 12, 1961, gage height, 6.57 ft (2.003 m), from rating curve extended above 1,500 ft³/s (42 m³/s); no flow at times during winters of 1951, 1956 and 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 818 ft³/s (23.2 m³/s) July 3 (1415 hrs), gage height, 4.62 ft (1.408 m), no peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 1.6 ft³/s (0.05 m³/s) Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	55	13	3.6	12	14	7.2	110	486	188	135	69
2	73	49	13	3.1	11	14	7.7	128	317	327	138	56
3	56	44	11	2.9	10	14	7.7	74	335	578	128	51
4	47	56	10	2.9	9.1	14	7.8	57	302	465	133	44
5	41	46	9.6	2.9	12	12	8.2	50	232	312	126	40
6	36	40	10	2.7	55	11	8.5	45	229	255	94	36
7	51	36	10	2.4	40	12	15	46	258	202	139	36
8	63	33	8.0	2.2	30	14	15	55	279	171	311	36
9	43	27	8.1	1.9	24	15	20	52	198	165	219	35
10	47	24	8.2	2.0	19	14	42	51	153	156	206	34
11	189	24	7.3	2.2	17	12	24	59	143	147	137	57
12	233	25	5.3	2.1	15	11	19	89	145	183	107	56
13	374	29	5.5	2.0	14	11	17	98	157	179	157	55
14	374	29	5.7	1.9	13	10	17	95	142	177	235	73
15	492	27	5.4	2.0	13	9.9	16	109	114	305	136	190
16	433	23	5.2	2.0	11	10	15	131	155	241	101	108
17	612	20	4.9	1.9	11	10	15	120	314	150	172	59
18	431	18	4.8	1.8	11	10	17	126	162	127	125	45
19	219	17	4.7	1.6	29	15	23	157	173	127	92	187
20	118	16	4.7	1.8	36	13	36	116	255	150	80	187
21	94	16	5.0	3.0	22	12	46	96	200	138	145	129
22	247	16	5.1	4.0	22	11	45	102	174	154	94	109
23	129	15	5.6	7.6	20	9.6	41	108	154	230	83	77
24	88	15	5.2	40	18	9.0	42	112	144	213	80	63
25	68	16	4.9	55	17	8.4	46	119	163	298	72	53
26	82	14	4.8	25	15	8.0	120	163	445	244	65	47
27	119	13	4.5	17	15	7.8	96	151	379	150	65	42
28	106	14	4.3	15	14	7.8	65	152	296	128	59	49
29	92	15	3.9	13	---	7.7	52	122	190	119	61	99
30	98	14	3.9	12	---	7.4	55	111	172	118	68	90
31	71	---	3.7	12	---	7.2	---	216	---	123	67	---
TOTAL	5228	786	205.3	249.5	535.1	341.8	946.1	3220	6866	6520	3830	2212
MEAN	169	26.2	6.62	8.05	19.1	11.0	31.5	104	229	210	124	73.7
MAX	612	56	13	55	55	15	120	216	486	578	311	190
MIN	36	13	3.7	1.6	9.1	7.2	7.2	45	114	118	59	34
CFSM	17.3	2.68	.68	.83	1.96	1.13	3.23	10.7	23.5	21.5	12.7	7.55
IN.	19.92	3.00	.78	.95	2.04	1.30	3.61	12.27	26.17	24.85	14.60	8.43
AC-FT	10370	1560	407	495	1060	678	1880	6390	13620	12930	7600	4390

CAL YR 1977 TOTAL 39883.0 MEAN 109 MAX 662 MIN 3.7 CFSM 11.2 IN 152.00 AC-FT 79110
WTR YR 1978 TOTAL 30939.8 MEAN 84.8 MAX 612 MIN 1.6 CFSM 8.69 IN 117.91 AC-FT 61370

15050000 GOLD CREEK AT JUNEAU--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-50, 1967-72, and 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
FEB						
21...	1215	22	161	7.6	1.5	13.0
MAR						
20...	1100	13	195	--	2.5	--
MAY						
19...	1145	156	131	7.8	5.0	--
JUN						
01...	0920	598	62	--	2.5	--
21...	1100	177	80	7.4	5.0	--
AUG						
21...	1100	159	98	--	6.0	--

15052500 MENDENHALL RIVER NEAR AUKE BAY

LOCATION.--Lat 58°25'05", long 134°32'40", in SW¼NE¼ sec.8, T.40 S., R.66 E., City and Borough of Juneau, Hydrologic Unit 19060000, at east end of Mendenhall Lake, 250 ft (76 m) northwest of Mendenhall Visitors Center, 4.2 mi (6.8 km) northeast of Auke Bay, and 7 mi (11 km) upstream from mouth at Fritz Cove.

DRAINAGE AREA.--85.1 mi² (220.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 60 ft (18 m), from topographic map.

REMARKS.--Records fair except those for Nov. 22 to Mar. 2, which are poor.

AVERAGE DISCHARGE.--13 years, 1,097 ft³/s (31.06 m³/s), 175.06 in/yr (4.447 mm/yr), 794,800 acre-ft/yr (980 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,820 ft³/s (278 m³/s) Sept. 28, 1976, gage height 8.67 ft (2.643 m); maximum gage height, 8.94 ft (2.725 m) Aug. 24, 1966; minimum daily discharge, 19 ft³/s (0.54 m³/s) Mar. 1-3, 1969 and Mar. 7-11, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,100 ft³/s (144 m³/s) Aug. 9-10 (2300 to 0015 hrs), gage height, 6.81 ft (2.076 m), only peak above base of 4,600 ft³/s (130 m³/s); minimum daily discharge, 20 ft³/s (0.57 m³/s) Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	321	76	30	54	70	60	314	1980	2190	3520	2430
2	1080	272	76	28	50	60	60	372	2570	2170	4170	2280
3	764	234	67	27	47	61	60	363	3170	2940	4080	2190
4	617	229	63	27	46	59	62	332	2940	3300	3980	1940
5	508	234	58	27	47	57	65	291	2500	3270	3540	1880
6	478	223	50	27	50	52	71	263	2110	3140	2720	1590
7	488	213	46	25	54	50	71	260	2250	2660	2680	1640
8	498	194	46	22	62	51	74	272	2530	2680	3730	1690
9	488	174	46	22	70	61	77	287	2630	2810	4500	1620
10	412	156	45	23	54	62	105	307	1950	3300	4500	1670
11	556	154	45	24	50	62	114	347	1930	2760	3360	1810
12	858	147	46	24	49	62	114	403	1990	2720	3140	1940
13	1180	147	47	22	48	62	111	444	2120	2990	2850	2190
14	1500	143	46	21	45	62	106	473	1940	2720	3230	2250
15	2200	150	45	22	43	59	106	540	1520	3040	3410	2730
16	2110	140	43	22	41	59	101	567	1600	3010	2910	2350
17	2610	131	41	21	41	59	99	567	2410	2200	3200	1520
18	2030	126	40	20	44	61	99	556	2170	1930	2920	1260
19	1380	113	40	23	48	64	111	556	2110	2090	2650	1640
20	944	108	42	27	52	67	125	572	2300	2360	[illegible]	2490
21	676	104	44	34	55	70	156	561	2300	2490	2430	2380
22	901	98	45	43	50	70	105	612	2250	2700	2570	1770
23	1010	81	46	56	52	68	194	682	2030	3330	2580	1180
24	886	76	43	82	50	65	208	713	1770	3620	2770	974
25	612	62	42	97	46	60	223	688	1710	3330	2640	872
26	556	78	39	97	56	59	258	719	2050	3240	2430	726
27	623	75	36	90	71	59	317	732	2810	2690	2400	701
28	658	76	35	80	94	59	314	804	2970	2490	2190	838
29	578	77	34	72	---	59	297	738	2540	2270	2390	1150
30	572	76	33	66	---	59	287	726	2330	2480	2610	1360
31	468	---	31	58	---	59	---	944	---	2980	2490	---
TOTAL	29771	4412	1436	1259	1469	1887	4230	16005	67280	85900	94920	51061
MEAN	960	147	46.3	40.6	52.5	60.9	141	516	2243	2771	3062	1702
MAX	2610	321	76	97	94	70	317	944	3170	3620	4500	2730
MIN	412	62	31	20	41	50	60	260	1520	1930	2190	701
CFSM	11.3	1.73	.54	.48	.62	.72	1.66	6.06	26.4	32.6	36.0	20.0
IN.	13.01	1.93	.63	.55	.64	.82	1.85	7.00	29.41	37.55	41.49	22.32
AC-FT	59050	8750	2850	2500	2910	3740	8390	31750	133400	170400	188300	101300

CAL YR 1977 TOTAL 472865 MEAN 1296 MAX 6400 MIN 31 CFSM 15.2 IN 206.70 AC-FT 937900
WTR YR 1978 TOTAL 389630 MEAN 985 MAX 4500 MIN 20 CFSM 11.6 IN 157.20 AC-FT 713300

BEST DOCUMENT AVAILABLE

15052500 MENDENHALL RIVER NEAR AUKE BAY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-72 and 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
DEC					
23...	1400	46	62	7.6	.5
FEB					
27...	1600	71	70	7.6	1.0
MAR					
31...	1150	59	63	--	4.0
MAY					
15...	1300	550	59	--	7.0

15056100 SKAGWAY RIVER AT SKAGWAY

LOCATION.--Lat 59°28'01", long 135°18'03", Hydrologic Unit 19060000, on left bank 800 ft (240 m) downstream from highway bridge, on dike near end of 20th Street in City of Skagway and on north end of Taiya Inlet.

DRAINAGE AREA.--145 mi^2 (376 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6.1 m), from topographic map. Prior to Mar. 3, 1976, at site 0.85 mi (1.4 km) downstream at different datum.

REMARKS.--Records fair except those for Nov. 6 to Apr. 2, which are poor. Streamflow is augmented and large diurnal fluctuations are caused by meltage from glaciers that cover 17 percent of the basin. Satellite telemeter at station.

AVERAGE DISCHARGE.--15 years, 527 ft^3/s (14.92 m^3/s), 49.36 in/yr (1,254 mm/yr), 381,800 acre-ft/yr (471 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Sept. 15, 1967, gage height, 8.50 ft (2.519 m), site and datum then in use, from rating curve extended above 4,000 ft^3/s (113 m^3/s) on basis of a contracted opening measurement of peak flow; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Mar. 31, 1974.

EXTREMES FOR CURRENT PERIOD.--Peak discharges above base of 3,000 ft^3/s (85 m^3/s) and maximum(*).

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 7	2330	*4,140	117	*16.44	5.011	Aug. 3	1900	3,800	108	16.29	4.965
July 11	0030	3,280	92.9	16.04	4.889						

Minimum daily discharges, 15 ft^3/s (0.42 m^3/s), Jan. 9-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463	296	39	18	16	18	26	181	3000	819	2890	1080
2	400	276	36	17	17	18	27	186	1940	719	2820	1630
3	360	267	34	17	17	18	29	186	2380	728	3010	1280
4	333	267	32	17	18	18	30	174	3520	1160	2870	1020
5	324	259	30	16	20	18	32	171	2680	1580	1880	985
6	293	230	29	16	22	18	34	169	2490	2030	1240	857
7	267	200	27	16	23	18	35	185	2760	2100	1320	788
8	262	170	26	16	22	18	39	192	2920	2030	1930	755
9	259	150	25	15	20	18	43	200	1760	2090	1850	691
10	270	130	25	15	20	18	50	217	1540	2460	1800	744
11	287	110	24	15	19	18	54	269	1440	2670	1590	780
12	431	100	23	15	18	18	60	395	1740	2440	1690	765
13	367	90	23	15	18	18	66	400	2020	2000	1550	799
14	374	80	22	15	18	18	70	385	1830	1450	1380	670
15	1400	70	21	15	18	18	80	418	1630	1240	1250	688
16	1090	65	21	15	19	19	87	455	1820	1020	1450	529
17	1060	60	20	15	19	19	94	383	1660	841	1660	444
18	769	56	19	15	20	19	103	335	1040	897	1570	411
19	539	53	19	15	22	19	125	308	797	1060	1230	511
20	447	50	19	15	24	19	164	309	847	1460	1040	658
21	415	48	18	16	22	19	192	319	1200	1590	1110	543
22	558	46	18	16	21	20	194	459	1300	1650	1100	466
23	488	45	18	17	20	20	195	544	1260	1900	1150	420
24	400	44	18	18	20	20	179	575	1160	1670	1140	389
25	360	44	18	20	19	20	189	552	984	1560	1190	365
26	340	44	18	19	19	21	209	607	917	1390	1120	341
27	389	46	19	18	19	21	230	531	955	1240	1160	331
28	389	50	20	17	19	22	185	667	831	1170	1030	343
29	367	47	19	16	---	23	165	547	880	1250	1100	456
30	367	43	19	16	---	24	159	522	968	1630	1160	501
31	330	---	18	16	---	25	---	937	---	2360	1070	---
TOTAL	14398	3436	717	502	549	600	3153	11778	50269	48204	48350	20140
MEAN	464	115	23.1	16.2	19.6	19.4	105	380	1676	1555	1560	671
MAX	1400	296	39	20	24	25	238	937	3520	2670	3010	1630
MIN	259	43	18	15	16	18	26	169	797	719	1030	331
CFSM	3.20	.79	.16	.11	.14	.13	.72	2.62	11.6	10.7	10.8	4.63
IN.	3.69	.88	.18	.13	.14	.15	.81	3.02	12.90	12.37	12.40	5.17
AC-FT	28560	6820	1420	996	1090	1190	6250	23360	99710	95610	95900	39950

CAL YR 1977 TOTAL 262865 MEAN 718 MAX 3170 MIN 18 CFSM 4.95 IN 67.23 AC-FT 519800
WTR YR 1978 TOTAL 202096 MEAN 554 MAX 3520 MIN 15 CFSM 3.82 IN 51.85 AC-FT 400900

15056100 SKAGWAY RIVER AT SKAGWAY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1966, 1968-69, 1972, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV 17...	1600	60	85	7.4	.0
AUG 29...	1105	929	27	7.3	6.5

15059500 WHIPPLE CREEK NEAR WARD COVE

LOCATION.--Lat 55°26'30", long 131"47'38", Gateway Borough, Hydrologic Unit 19060000, on Revillagigedo Island, on left bank 350 ft (107 m) upstream from old highway bridge on North Tongass Highway, 0.35 mi (0.56 km) upstream from mouth at Tongass Narrows, 2 mi (3 km) south of village of Knudsen Cove, and 3.4 mi (5.5 km) northwest of Ward Cove Post Office.

DRAINAGE AREA.--5.29 mi^2 (13.70 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 90 ft (27 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years, 34.5 ft^3/s (0.977 m^3/s), 88.57 in/yr (2,250 mm/yr), 25,000 acre-ft/yr (30.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft^3/s (80.1 m^3/s) Nov. 19, 1968, gage height, 8.73 ft (2.661 m), from rating curve extended above 600 ft^3/s (17 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Jan. 14-16, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 11	0700	673	19.1	4.92	1.500	Feb. 22	0100	499	14.1	4.46	1.359
Oct. 15	0800	1,260	35.7	6.13	1.868	Apr. 9	2400	509	14.4	4.49	1.369
Nov. 11	0400	*1,470	41.6	*6.47	1.972	Sept.19	1315	545	15.4	4.59	1.399
Jan. 24	1900	770	21.8	5.15	1.570	Sept.28	0900	492	13.9	4.44	1.353

Minimum daily discharge, 2.4 ft^3/s (0.068 m^3/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	30	42	4.3	4.3	8.2	14	106	17	6.2	3.3	54
2	7.5	39	31	4.1	4.2	6.3	13	39	15	5.3	2.8	17
3	6.0	72	23	3.9	4.3	5.2	14	22	14	5.6	2.4	15
4	8.2	69	19	3.8	14	5.2	13	15	12	5.5	2.9	10
5	12	50	17	3.6	134	4.8	13	13	11	5.0	5.1	8.9
6	7.8	99	16	4.9	131	55	13	11	11	5.0	40	7.7
7	62	37	15	6.9	79	86	30	9.5	11	4.9	145	7.3
8	22	29	14	9.0	38	76	23	8.2	14	5.0	38	7.2
9	12	22	13	10	26	73	162	7.4	12	6.6	16	6.3
10	41	96	12	37	20	74	115	6.4	10	6.2	18	7.8
11	460	541	12	30	13	27	29	6.0	12	5.2	14	7.0
12	130	128	16	15	10	17	60	12	13	7.9	12	23
13	82	117	52	11	8.6	14	35	14	14	9.4	13	28
14	70	119	255	8.7	7.6	12	21	17	11	7.5	23	50
15	247	62	35	8.1	12	13	15	15	9.2	8.1	15	34
16	132	42	29	7.6	12	31	13	15	8.4	21	12	56
17	167	31	41	6.7	46	17	12	26	10	12	23	20
18	88	25	22	6.2	32	18	11	18	9.1	8.1	19	14
19	33	22	16	6.6	160	44	12	30	8.1	6.1	13	137
20	22	19	14	78	53	34	12	22	7.7	5.3	12	60
21	237	17	13	40	110	19	11	16	8.9	4.9	11	134
22	172	16	10	19	157	15	10	14	8.0	4.3	12	30
23	39	15	8.8	132	33	19	10	13	7.2	6.0	9.5	22
24	54	14	8.0	288	21	57	9.1	13	6.6	5.5	8.2	21
25	144	13	7.2	93	15	84	8.7	20	6.2	5.0	9.0	15
26	171	12	6.6	25	12	41	14	66	7.4	4.9	7.8	13
27	229	56	6.2	18	10	70	13	151	11	4.4	6.9	63
28	64	148	5.6	14	8.5	37	9.6	61	8.5	4.3	6.2	284
29	70	105	5.2	9.2	---	25	8.9	33	6.8	3.8	36	56
30	61	55	4.9	6.1	---	19	13	22	6.2	3.5	18	35
31	32	---	4.6	4.5	---	16	---	19	---	4.4	34	---
TOTAL	2896.5	2100	774.1	914.2	1175.5	1022.7	737.3	840.5	306.3	196.9	588.1	1243.2
MEAN	93.4	70.0	25.0	29.5	42.0	33.0	24.6	27.1	10.2	6.35	19.0	41.4
MAX	460	541	255	288	160	86	162	151	17	21	145	284
MIN	6.0	12	4.6	3.6	4.2	4.8	8.7	6.0	6.2	3.5	2.4	6.3
CFSM	17.7	13.2	4.73	5.58	7.94	6.24	•.65	5.12	1.93	1.20	3.59	7.83
IN.	20.36	14.76	5.44	6.43	8.26	7.19	5.18	5.91	2.15	1.38	4.13	8.74
AC-FT	5750	4170	1540	1810	2330	2030	1460	1670	608	391	1170	2470

CAL YR 1977 TOTAL 13409.2 MEAN 36.7 MAX 541 MIN 4.4 CFSM 6.94 IN 94.28 AC-FT 26600
WTR YR 1978 TOTAL 12795.3 MEAN 35.1 MAX 541 MIN 2.4 CFSM 6.64 IN 89.96 AC-FT 25380

15059500 WHIPPLE CREEK NEAR WARD COVE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-72 and 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT							
07...	1545	273	--	--	--	338	249
JAN							
10...	1630	25	40	6.2	.0	--	--

BEST DOCUMENT AVAILABLE

15067900 UPPER MAHONEY LAKE OUTLET NEAR KETCHIKAN

LOCATION.--Lat 55°24'50", long 131°33'16", in SE¼NE¼ sec.34, T.74 S., R.91 E., Gateway Borough, Hydrologic Unit 1906000, on Revillagigedo Island, in Tongass National Forest, on right bank 300 ft (100 m) upstream from lake outlet and 6 mi (10 km) northeast of Ketchikan.

DRAINAGE AREA.--2.03 mi^2 (5.26 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (600 m), from topographic map.

REMARKS.--Records poor. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 409 ft^3/s (11.6 m^3/s) Nov. 11, gage height, 6.70 ft (2.042 m), from rating curve extended above 75 ft^3/s (2.1 m^3/s); minimum daily, 2.9 ft^3/s (0.082 m^3/s) Jan. 10 and 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	28	22	4.7	5.7	11	12	68	32	21	21	49
2	12	20	17	4.5	5.5	8.7	11	45	36	20	22	25
3	13	13	14	4.1	5.2	7.6	9.2	26	40	19	22	17
4	11	15	13	3.9	6.2	6.6	8.6	18	45	18	22	14
5	10	20	11	3.6	9.0	6.4	8.7	14	44	21	53	12
6	9.2	15	9.9	3.5	18	6.6	9.2	13	42	24	181	9.6
7	11	12	9.0	3.3	24	16	12	13	41	26	151	9.0
8	13	9.9	7.7	3.1	37	32	19	21	39	23	83	8.6
9	15	8.3	7.1	3.0	31	36	25	20	40	23	41	8.0
10	17	12	7.4	2.9	26	33	37	22	43	23	33	8.3
11	40	234	9.6	3.0	20	28	36	26	36	24	38	9.3
12	145	88	12	3.1	16	24	30	50	35	25	29	31
13	110	61	15	3.2	14	18	25	43	36	27	25	56
14	88	42	23	3.2	11	14	21	32	41	26	38	104
15	52	27	31	3.1	9.0	12	18	31	37	25	30	72
16	60	21	38	3.0	8.0	11	14	33	37	30	23	54
17	70	16	27	2.9	8.0	12	12	33	38	51	31	31
18	84	12	21	3.0	8.8	11	10	22	37	33	42	18
19	52	9.6	16	3.2	20	13	9.1	24	33	26	27	159
20	34	7.7	14	3.7	36	18	9.5	14	31	23	19	288
21	22	7.1	13	4.8	42	20	11	15	32	25	18	239
22	140	6.9	11	5.9	40	18	14	16	34	28	27	113
23	70	7.1	10	7.0	32	15	18	19	35	31	22	80
24	37	6.9	9.0	17	29	13	23	23	34	25	17	38
25	47	11	7.9	30	26	24	21	30	29	22	16	25
26	60	18	7.3	38	21	36	41	42	28	20	15	14
27	74	22	6.8	33	16	30	43	49	29	19	14	23
28	80	36	6.3	23	13	26	30	40	30	18	12	143
29	75	38	5.8	14	---	22	22	35	27	18	58	74
30	62	26	5.4	9.0	---	17	26	31	24	18	50	53
31	42	---	5.1	6.0	---	15	---	31	---	21	43	---
TOTAL	1566.2	850.5	412.3	255.7	537.4	560.9	585.3	899	1065	753	1223	1784.8
MEAN	50.5	28.4	13.3	8.25	19.2	18.1	19.5	29.0	35.5	24.3	39.5	59.5
MAX	145	234	38	38	42	36	43	68	45	51	181	288
MIN	9.2	6.9	5.1	2.9	5.2	6.4	8.6	13	24	18	12	8.0
CFSM	24.9	14.0	6.55	4.06	9.46	8.92	9.61	14.3	17.5	12.0	19.5	29.3
IN.	28.69	15.58	7.55	4.68	9.84	10.27	10.72	16.47	19.51	13.79	22.40	32.69
AC-FT	3110	1690	818	507	1070	1110	1160	1780	2110	1490	2430	3540

WTR YR 1978 TOTAL 10493.1 MEAN 28.7 MAX 288 MIN 2.9 CFSM 14.1 IN 192.19 AC-FT 20810

15067900 UPPER MAHONEY LAKE OUTLET NEAR KETCHIKAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
MAY				
08...	1530	23	.5	11.5

15068000 MAHONEY CREEK NEAR KETCHIKAN

LOCATION (revised).--Lat 55°25'34", long 131°30'40", in SW¼NE¼ sec.25, T.74 S., R.91 E., Gateway Borough, Hydrologic Unit 19060000, on Revillagigedo Island, in Tongass National Forest, on right bank 0.1 mi (0.2 km) upstream from mouth at George Inlet, 0.1 mi (0.2 km) downstream from Mahoney Lake, and 8 mi (13 km) northeast of Ketchikan.

DRAINAGE AREA.--5.70 mi^2 (14.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1920 to October 1925, September 1926 to October 1933, October 1947 to September 1958, October 1977 to current year. Monthly discharge only for some periods, published in WSP 1372. Prior to October 1947, published as "at George Inlet".

GAGE.--Water-stage recorder. Altitude of gage is 48 ft (15 m), by barometer. Prior to October 1947, at site 80 ft (24 m) downstream at different datum and October 1947 to September 1958 at site 80 ft (24 m) downstream at datum 2.68 ft (0.817 m) lower.

REMARKS.--Records poor prior to Oct. 21 and after Aug. 1 during periods of no gage-height record.

AVERAGE DISCHARGE.--24 years (1920-25, 1926-33, 1947-58, 1978), 105 ft^3/s (2.974 m^3/s), 250.16 in/yr (6,354 mm/yr), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft^3/s (71.6 m^3/s) Feb. 2, 1954 from rating curve extended above 1,100 ft^3/s (31.2 m^3/s); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Jan. 30 to Feb. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 400 ft^3/s (11.3 m^3/s) Oct. 11; no peak discharge above base of 950 ft^3/s (27 m^3/s); minimum daily, 7.8 ft^3/s (0.221 m^3/s) Jan. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	70	52	13	22	24	31	113	90	59	27	58
2	33	59	43	12	20	22	26	107	108	54	26	50
3	31	55	35	11	18	20	24	101	125	50	25	43
4	28	61	29	9.6	17	18	24	77	131	53	27	37
5	24	61	24	9.4	31	17	23	60	127	63	52	34
6	25	79	22	8.7	110	19	24	51	121	67	90	31
7	30	66	20	8.3	114	48	38	47	126	64	160	29
8	38	52	18	8.3	113	94	56	49	147	61	120	28
9	43	44	17	7.8	84	92	82	51	134	61	95	27
10	150	44	16	7.8	64	88	97	52	103	61	80	26
11	400	183	16	8.3	51	66	89	53	97	62	70	26
12	300	161	17	8.6	42	50	72	101	97	64	60	28
13	180	154	17	8.6	31	43	60	117	114	72	54	38
14	150	143	53	8.3	25	35	50	95	117	69	48	54
15	140	108	90	8.1	23	29	43	89	101	65	43	100
16	200	71	77	8.0	21	32	36	98	100	106	40	85
17	220	54	66	7.8	22	29	30	122	114	104	47	70
18	120	45	52	8.0	28	28	26	97	104	76	70	64
19	90	36	41	8.6	84	46	25	106	88	62	58	76
20	70	27	38	11	113	54	24	124	89	61	52	250
21	60	23	34	15	113	48	29	92	87	68	46	190
22	320	21	29	17	94	40	39	76	97	74	42	140
23	159	19	25	22	88	34	48	74	98	72	40	110
24	98	17	22	77	79	72	55	79	92	61	37	92
25	171	17	20	105	58	96	61	107	82	53	35	82
26	220	35	19	100	47	91	90	162	78	48	33	72
27	218	61	17	78	38	82	119	152	87	43	32	85
28	229	104	16	56	30	65	96	133	83	39	30	170
29	216	118	15	45	---	54	74	133	72	34	31	150
30	168	68	14	35	---	46	72	99	64	31	35	130
31	94	---	13	26	---	38	---	84	---	29	44	---
TOTAL	4259	2056	967	757.2	1580	1520	1563	2901	3073	1886	1649	2375
MEAN	137	68.5	31.2	24.4	56.4	49.0	52.1	93.6	102	60.8	53.2	79.2
MAX	400	183	90	105	114	96	119	162	147	106	160	250
MIN	24	17	13	7.8	17	17	23	47	64	29	25	26
CFSM	24.0	12.0	5.47	4.28	9.90	8.60	9.14	16.4	17.9	10.7	9.33	13.9
IN.	27.79	13.42	6.31	4.94	10.31	9.92	10.20	18.93	20.05	12.31	10.76	15.50
AC-FT	8450	4080	1920	1500	3130	3010	3100	5750	6100	3740	3270	4710

WTR YR 1978 TOTAL 24586.2 MEAN 67.4 MAX 400 MIN 7.8 CFSM 11.8 IN 160.43 AC-FT 48770

BEST DOCUMENT AVAILABLE

15068000 MAHONEY CREEK NEAR KETCHIKAN--Continued

PERIOD OF RECORD.--Water years 1949 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
JAN				
04...	1200	9.7	15	1.0

15072000 FISH CREEK NEAR KETCHIKAN

LOCATION.--Lat 55°23'30", long 131°11'40", Gateway Borough, Hydrologic Unit 1906000, on Revillagigedo Island, in Tongass National Forest, on right bank 100 ft (30 m) upstream from outlet of Low Lake, 750 ft (230 m) upstream from mouth at Thorne Arm, and 18 mi (29 km) east of Ketchikan.

DRAINAGE AREA.--32.1 mi² (83.1 km²), excludes that of Granite Lake drainage basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1915 to October 1936, October 1938 to current year. Prior to October 1945, monthly discharge only. Prior to January 1921, published as "near Sea Level, Revillagigedo Island."

REVISED RECORDS.--WSP 1372: 1918.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6.1 m) by barometer. Prior to October 1935, at site 50 ft (15 m) downstream at different datum. October 1935 to Oct. 3, 1975, at prior site and present datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--60 years, 423 ft³/s (11.98 m³/s), 178.95 in/yr (4,545 mm/yr), 306,500 acre-ft/yr (378 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s (153 m³/s) Oct. 15, 1961, gage height, 8.85 ft (2.697 m), site then in use, from rating curve extended above 3,600 ft³/s (102 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) Sept. 9, 10, 1928.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,920 ft³/s (82.7 m³/s) Oct. 12 (0245 hrs), gage height, 4.01 ft (1.222 m), only peak above base of 2,200 ft³/s (62 m³/s); minimum daily, 28 ft³/s (0.79 m³/s) Jan. 10, 16, and 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	550	474	48	168	161	194	378	354	166	68	200
2	210	450	353	44	154	132	178	605	327	155	64	204
3	203	360	269	41	139	115	168	617	322	138	58	196
4	186	291	218	38	135	103	158	515	317	129	54	177
5	163	288	181	36	217	99	151	405	322	116	64	155
6	149	364	151	34	265	127	152	327	312	107	198	138
7	150	314	128	32	297	220	181	279	303	105	696	119
8	193	273	106	30	282	342	273	254	293	99	1000	110
9	250	228	94	29	256	420	426	246	312	99	709	96
10	271	222	86	28	239	447	658	235	312	93	532	88
11	1230	908	88	29	225	350	616	225	307	93	420	88
12	2530	1250	90	31	214	275	523	229	293	90	327	88
13	1580	975	104	31	197	223	423	269	278	102	264	107
14	1020	854	258	30	173	188	337	283	278	107	260	148
15	890	700	329	29	160	171	275	283	255	122	269	307
16	844	537	351	28	143	192	230	288	238	188	255	487
17	1240	402	343	28	173	165	202	343	216	283	233	456
18	1340	314	266	29	195	152	184	386	220	303	273	359
19	955	238	212	53	247	168	178	370	216	251	293	348
20	624	192	188	77	303	198	179	359	196	204	260	688
21	507	160	164	96	371	219	203	348	184	173	220	1250
22	850	136	137	103	453	212	236	307	177	151	212	1090
23	867	115	118	162	401	191	264	269	173	135	212	748
24	647	100	102	251	553	216	279	255	166	129	192	558
25	534	99	90	388	395	329	283	246	162	122	173	398
26	890	164	80	383	303	407	288	269	155	110	162	312
27	1580	248	74	310	232	416	348	398	166	99	148	260
28	1330	376	68	280	188	364	393	650	188	93	135	472
29	1050	583	62	266	---	315	360	657	192	88	122	837
30	850	600	57	236	---	267	315	513	181	81	125	772
31	700	---	53	192	---	226	---	403	---	73	142	---
TOTAL	24012	12291	5294	3392	7078	7410	8655	11211	7415	4204	8140	11256
MEAN	775	410	171	109	253	239	289	362	247	136	263	375
MAX	2530	1250	474	388	553	447	658	657	354	303	1000	1250
MIN	149	99	53	28	135	99	151	225	155	73	54	88
CFSM	24.1	12.8	5.33	3.40	7.88	7.45	9.00	11.3	7.70	4.24	8.19	11.7
IN.	27.83	14.24	6.13	3.93	8.20	8.59	10.03	12.99	8.59	4.87	9.43	13.04
AC-FT	47630	24380	10500	6730	14040	14700	17170	22240	14710	8340	16150	22330

CAL YR 1977 TOTAL 135383 MEAN 371 MAX 2530 MIN 46 CFSM 11.6 IN 156.89 AC-FT 268500
WTR YR 1978 TOTAL 110358 MEAN 302 MAX 2530 MIN 28 CFSM 9.41 IN 127.89 AC-FT 218900

15072000 FISH CREEK NEAR KETCHIKAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years, 1949, 1968, 1971, 1975, 1976, and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT 29...	1630	883	21	6.5	7.5	--
JAN 03...	1345	37	22	7.6	.0	--
AUG 04...	1400	54	30	--	19.0	9.0

15081500 STANEY CREEK NEAR CRAIG

LOCATION.--lat 55°48'57", long 133°07'58", Hydrologic Unit 19060000, in Tongass National Forest, on Prince of Wales Island, on left bank 1.3 mi (2.1 km) upstream from mouth at Tuxekan Passage and 23 mi (37 km) north of Craig.

DRAINAGE AREA.--51.6 mi² (133.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Published as Lester River near Craig, October 1964 to September 1966.

REVISED RECORDS.--WSP 2136: 1965 (M).

GAGE.--Water-stage recorder. Altitude of gage is 2 ft (0.6 m), from topographic map.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--14 years, 358 ft³/s (10.14 m³/s), 94.22 in/yr (2,393 mm/yr), 259,400 acre-ft/yr (320 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft³/s (442 m³/s) Oct. 18, 1964, gage height, 13.1 ft (3.99 m) from floodmarks, from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily, 8.7 ft³/s (0.24 m³/s) Aug. 22-25, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,390 ft³/s (153 m³/s) Oct. 27 (1030 hrs), gage height, 8.23 ft (2.509 m), no peak above base of 7,000 ft³/s (200 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	265	160	41	71	72	99	573	114	41	23	710
2	115	226	128	39	66	66	90	1410	109	40	22	234
3	100	328	110	37	62	61	85	719	109	37	21	173
4	94	471	98	36	74	60	84	378	98	41	25	138
5	86	360	89	29	165	70	87	211	82	47	98	95
6	92	640	81	28	295	120	90	144	90	50	260	75
7	120	416	74	28	405	330	195	132	75	41	1110	85
8	150	281	64	27	375	425	263	160	114	38	650	78
9	175	166	58	27	325	365	308	120	186	39	186	82
10	640	138	57	27	250	310	391	111	126	40	160	75
11	2400	1350	63	28	154	208	335	103	109	43	120	82
12	770	920	75	30	118	162	260	129	98	44	90	348
13	560	1260	100	30	99	137	221	156	80	40	73	555
14	510	2300	270	29	85	120	189	117	68	36	135	683
15	570	1160	310	28	76	108	162	109	57	50	111	1690
16	680	444	285	28	72	99	126	114	53	59	103	762
17	790	215	250	29	83	109	105	183	73	66	275	269
18	470	156	210	30	155	120	96	141	71	34	436	176
19	315	138	160	33	315	165	89	916	62	33	163	1970
20	265	112	117	37	435	184	85	265	90	40	111	779
21	460	94	101	48	400	161	87	138	73	45	95	727
22	1790	78	89	57	330	142	89	126	64	41	87	570
23	471	70	82	72	280	130	90	98	60	36	71	281
24	281	64	77	330	238	265	93	92	57	32	66	197
25	872	96	70	380	160	350	97	92	61	27	55	160
26	1780	240	66	325	120	310	98	173	70	25	68	129
27	3240	300	60	265	96	268	100	271	63	24	87	111
28	986	380	55	180	81	227	103	423	54	23	80	329
29	808	425	50	125	---	170	117	245	47	22	82	971
30	436	210	47	96	---	130	156	147	43	21	163	449
31	328	---	44	80	---	109	---	109	---	20	465	---
TOTAL	20469	13303	3500	2579	5385	5553	4390	8105	2456	1175	5491	12983
MEAN	660	443	113	83.2	192	179	146	261	81.9	37.9	177	433
MAX	3240	2300	310	380	435	425	391	1410	186	66	1110	1970
MIN	86	64	44	27	62	60	84	92	43	20	21	75
CFSM	12.8	8.59	2.19	1.61	3.72	3.47	2.83	5.06	1.59	.73	3.43	8.39
IN.	14.76	9.59	2.52	1.86	3.88	4.00	3.16	5.84	1.77	.85	3.96	9.36
AC-FT	40600	26390	6940	5120	10680	11010	8710	16080	4870	2330	10890	25750

CAL YR 1977 TOTAL 101382 MEAN 278 MAX 3240 MIN 12 CFSM 5.39 IN 73.09 AC-FT 201100
WTR YR 1978 TOTAL 85389 MEAN 234 MAX 3240 MIN 20 CFSM 4.54 IN 61.56 AC-FT 169400

15081500 STANEY CREEK NEAR CRAIG--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: April 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Apr. 18, 1966.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C June 18, 1969; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 20.0°C July 28; minimum recorded, 4.0°C May 2, 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
JAN 05...	1500	29	130	.5

TEMPERATURE (DEG. C) OF WATER, APRIL TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.0	5.0	14.5	11.0	13.0	11.5	---	16.0	13.5	11.5
2	---	---	5.5	4.0	17.5	10.5	13.5	12.5	---	16.0	14.0	12.5
3	---	---	6.0	4.0	18.5	12.0	15.5	14.0	17.5	14.5	14.5	12.0
4	---	---	7.5	4.5	17.5	13.0	15.5	14.0	16.0	13.0	13.5	11.0
5	---	---	7.5	4.5	19.0	13.0	17.0	14.0	16.5	12.0	12.5	10.5
6	---	---	8.0	5.0	---	10.0	17.5	14.0	16.0	14.0	11.5	10.5
7	---	---	9.0	6.5	18.0	14.5	14.0	12.5	16.0	13.0	10.5	10.0
8	---	---	8.5	6.0	15.0	13.0	16.0	12.0	17.0	13.5	10.5	9.0
9	---	---	11.0	6.5	16.5	7.5	19.0	10.0	17.5	11.5	10.0	7.5
10	---	---	11.0	6.5	16.5	7.0	---	15.0	17.0	11.5	9.5	6.5
11	---	---	10.5	7.0	16.5	13.0	15.5	10.0	15.5	12.0	9.5	8.5
12	---	---	10.5	7.0	18.5	12.5	15.0	12.5	16.0	11.5	9.5	8.5
13	---	---	12.5	6.5	19.5	13.5	14.0	12.5	15.5	13.0	9.0	8.5
14	---	---	13.5	7.5	19.0	10.0	13.0	11.0	14.5	11.5	9.0	8.0
15	---	---	11.5	8.5	17.0	12.5	12.5	9.5	17.0	12.0	9.5	7.5
16	---	---	10.0	8.5	15.5	11.5	15.5	11.5	18.0	12.0	10.0	7.5
17	---	---	10.0	6.5	14.5	12.5	16.0	13.5	17.0	14.0	9.5	7.5
18	---	---	9.5	7.5	16.0	13.0	19.0	15.5	15.5	13.5	9.5	6.0
19	---	---	9.0	6.5	14.0	12.0	18.5	14.0	16.5	13.0	11.5	9.0
20	---	---	10.5	6.5	19.0	13.0	---	15.5	16.0	12.5	11.5	10.0
21	---	---	12.5	6.0	---	15.5	17.5	14.0	16.5	14.0	10.0	9.5
22	---	---	14.5	8.0	---	14.5	16.5	14.0	16.0	13.5	10.0	9.0
23	---	---	14.5	8.5	16.0	10.0	15.5	14.0	14.5	10.0	9.5	8.0
24	---	---	12.5	9.5	15.0	10.0	15.0	13.5	13.5	10.0	9.0	8.0
25	---	---	12.5	10.0	13.5	10.0	16.0	14.0	13.0	9.5	9.5	8.0
26	---	---	10.5	8.0	13.0	10.5	15.5	10.0	13.0	10.5	9.0	8.5
27	---	---	10.0	7.5	15.5	10.5	17.0	14.0	13.5	9.5	10.0	9.0
28	7.5	7.0	9.0	6.5	14.5	11.0	20.0	16.0	14.0	10.0	10.5	9.0
29	8.5	5.0	9.5	7.0	14.0	11.5	---	16.0	15.0	12.0	10.0	9.5
30	9.0	6.0	12.5	6.0	13.5	11.5	---	16.0	14.0	10.0	9.5	9.0
31	---	---	14.0	9.5	---	---	---	16.5	14.0	11.0	---	---
MONTH			14.5	4.0	19.5	7.0	20.0	9.5	18.0	9.5	14.5	6.0

15083500 PERKINS CREEK NEAR METLAKATLA

LOCATION.--Lat 54°56'48", long 132°10'15", in NW¼SW¼ sec.9, T.80 S., R.88 E., Hydrologic Unit 19060000, on Prince of Wales Island, in Tongass National Forest, on right bank 1,000 ft (305 m) upstream from mouth at South Arm of Moria Sound, 27 mi (43 km) southwest of Metlakatla, and 35 mi (56 km) southwest of Ketchikan.

DRAINAGE AREA.--3.38 mi² (8.75 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 18 ft (5.5 m), from topographic map.

REMARKS.--Water-discharge records good. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 860 ft³/s (24.4 m³/s) Sept. 13, 1976, gage height, 4.76 ft (1.451 m), from rating curve extended above 80 ft³/s (2.3 m³/s); minimum daily, 1.3 ft³/s (0.037 m³/s) Aug 19 and 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 526 ft³/s (14.9 m³/s) Oct. 11, gage height, 3.88 ft (1.183 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Aug. 2 and 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	56	61	3.9	5.2	5.2	13	106	5.3	2.1	1.7	26
2	8.7	47	20	3.6	5.0	4.9	11	57	4.8	2.0	1.6	26
3	6.6	80	13	3.4	4.9	4.7	13	26	4.3	2.3	1.6	40
4	51	118	9.9	3.2	29	12	10	14	3.9	2.5	1.8	15
5	31	47	8.4	3.1	175	16	11	8.8	3.6	2.5	12	8.7
6	11	102	7.4	3.0	106	187	9.2	7.0	3.4	2.5	49	6.4
7	40	32	6.9	7.0	133	223	29	10	3.2	2.5	172	5.3
8	25	24	6.4	17	48	109	18	8.7	3.4	3.5	21	4.8
9	12	16	6.0	46	25	95	143	6.3	3.3	5.7	9.1	4.3
10	115	60	5.8	90	25	54	68	5.4	6.8	3.6	8.0	4.3
11	319	140	8.0	46	21	17	16	5.0	13	3.0	11	4.3
12	52	101	16	32	12	18	32	23	5.9	3.3	7.6	72
13	46	95	197	26	8.3	26	15	19	4.4	4.1	12	36
14	61	68	205	21	17	15	10	7.7	3.8	3.2	15	78
15	110	51	21	16	32	67	7.6	5.9	3.4	9.0	7.4	34
16	78	21	12	13	24	64	6.5	13	3.2	20	6.4	50
17	87	14	17	11	81	19	6.6	13	3.2	6.3	12	13
18	45	11	32	14	66	26	6.7	8.0	3.1	4.4	10	8.7
19	20	9.1	28	16	78	61	6.2	25	3.0	3.7	6.7	155
20	15	7.7	88	90	35	28	6.2	10	2.8	3.1	5.0	24
21	230	6.8	21	21	93	16	6.8	6.9	2.8	2.7	5.6	44
22	91	6.5	14	11	74	12	6.6	5.7	2.7	2.5	5.3	73
23	26	6.4	10	151	18	38	8.1	4.9	2.4	2.2	4.3	47
24	73	6.5	8.5	152	12	119	5.7	4.3	2.1	2.2	3.8	28
25	124	25	7.5	65	9.3	93	5.8	6.6	2.1	2.2	3.2	14
26	114	95	6.8	17	7.9	66	16	18	3.2	2.1	3.0	11
27	256	86	6.4	10	6.9	80	8.4	168	3.6	2.0	3.0	116
28	132	116	8.0	8.0	6.1	26	5.5	27	2.8	1.9	3.0	270
29	56	98	6.4	6.9	---	15	33	12	2.5	2.0	24	40
30	29	48	5.0	6.0	---	11	103	8.3	2.3	2.0	12	70
31	19	---	4.5	5.6	---	17	---	6.5	---	1.8	96	---
TOTAL	2307.3	1594.0	866.9	918.7	1157.6	1544.8	636.9	647.0	114.3	112.9	531.9	1326.8
MEAN	74.4	53.1	28.0	29.6	41.3	49.8	21.2	20.9	3.81	3.64	17.2	44.2
MAX	319	140	205	152	175	223	143	168	13	20	172	270
MIN	6.6	6.4	4.5	3.0	4.9	4.7	5.5	4.3	2.1	1.8	1.6	4.3
CFSM	22.0	15.7	8.28	8.76	12.2	14.7	6.27	6.18	1.13	1.08	5.09	13.1
IN.	25.39	17.54	9.54	10.11	12.74	17.00	7.01	7.12	1.26	1.24	5.85	14.60
AC-FT	4580	3160	1720	1820	2300	3060	1260	1280	227	224	1060	2630

CAL YR 1977 TOTAL 11083.9 MEAN 30.4 MAX 319 MIN 1.3 CFSM 8.99 IN 121.95 AC-FT 21980
WTR YR 1978 TOTAL 11759.1 MEAN 32.2 MAX 319 MIN 1.6 CFSM 9.53 IN 129.38 AC-FT 23320

15083500 PERKINS CREEK NEAR METLAKATLA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1976 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 6, 1976.

REMARKS.--Water-quality data were previously published for water years 1976 and 1977, except for temperature records, which are included herein. No record for periods Jan. 18 to May 10, 1978 and Aug. 5 to Sept. 30, 1978.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURES:
August to September 1976: Maximum, 15.0°C Aug. 6; minimum, 7.5°C Sept. 17-19.

Water year 1977: Maximum, 18.0°C Aug. 14, 15, and 20; minimum, 0.0°C Jan. 3, 4.

Water year 1978: Maximum recorded, 17.5°C July 21, 30, 31, Aug. 1, 2; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT										
18...	1130	48	33	--	8.0	--	--	--	--	--
MAY										
09...	1500	6.1	39	6.5	9.0	6	.00	10.9	8	2
JUN										
22...	1430	2.7	49	7.4	14.5	--	.00	9.9	11	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT										
18...	--	.3	--	--	--	--	3.6	--	.00	--
MAY										
09...	1.5	1.1	3.9	.3	7	0	2.8	7.4	--	.01
JUN										
22...	3.0	.8	4.4	.4	--	--	5.8	6.9	--	.14

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT										
18...	.00	--	.05	--	.05	--	.05	.01	--	<10
MAY										
09...	--	.01	--	.19	--	.20	--	--	.18	--
JUN										
22...	--	.08	--	.89	--	.97	--	--	.56	--

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	TANNIN AND LIGNIN (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT									
18...	110	0	.4	40	4.4	4.6	.9	1	.13
MAY									
09...	--	--	--	--	--	--	--	1	.02
JUN									
22...	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

15083500 PERKINS CREEK NEAR METLAKATLA--Continued

TEMPERATURE (DEG. C) OF WATER, AUGUST TO SEPTEMBER 1976

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1									---	---	12.0	10.5
2									---	---	11.5	10.5
3									---	---	11.0	10.5
4									---	---	11.0	10.0
5									---	---	10.5	9.5
6									15.0	11.5	10.5	9.0
7									14.5	12.5	11.0	9.5
8									14.0	13.0	11.5	10.5
9									14.0	13.0	11.5	10.5
10									13.0	12.0	10.5	9.5
11									12.0	11.0	10.5	9.0
12									11.5	11.0	9.5	9.0
13									12.0	10.5	10.0	9.5
14									12.5	10.0	10.0	9.5
15									13.0	11.5	10.5	10.0
16									13.0	10.5	10.0	9.5
17									13.5	11.0	9.0	7.5
18									12.0	11.5	9.0	7.5
19									11.5	11.0	9.0	7.5
20									11.5	11.0	9.5	8.0
21									11.5	10.0	10.5	9.5
22									11.5	10.0	10.5	10.0
23									11.5	9.5	10.5	9.5
24									11.5	9.5	11.0	10.5
25									12.0	9.5	11.5	11.0
26									11.0	10.5	11.5	11.0
27									11.0	10.0	11.5	11.0
28									11.0	10.0	11.5	10.0
29									11.5	10.5	10.0	9.5
30									12.0	10.5	9.5	8.5
31									12.0	10.5	---	---
MONTH									15.0	9.5	12.0	7.5

BEST DOCUMENT AVAILABLE

15083500 PERKINS CREEK NEAR METLAKATLA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	8.0	5.5	4.0	5.0	4.0	2.0	1.5	5.0	5.0	3.5	3.0
2	8.5	8.0	7.5	5.5	4.5	3.0	1.0	.5	5.5	5.0	3.0	3.0
3	8.5	7.5	8.5	7.0	3.0	2.0	.5	.0	5.5	5.0	3.5	3.0
4	9.0	8.5	7.0	6.0	2.0	1.5	1.0	.0	6.0	5.5	4.5	3.5
5	8.5	7.5	6.5	6.0	3.5	2.0	1.5	1.0	5.5	5.5	4.0	3.5
6	10.5	8.0	6.5	6.0	4.5	4.0	2.0	1.5	6.0	5.5	3.5	2.5
7	10.5	10.0	6.0	5.0	4.5	4.0	2.0	1.5	6.0	5.5	3.5	2.5
8	10.0	10.0	5.0	5.0	4.0	3.5	2.0	1.5	5.5	5.5	4.0	3.5
9	10.0	9.5	5.5	5.0	5.5	3.5	2.0	2.0	5.5	5.0	3.5	3.0
10	9.0	8.5	6.0	5.5	5.5	5.0	2.5	2.0	5.0	4.0	3.0	2.5
11	8.5	8.0	6.5	6.0	5.0	4.0	2.5	2.5	5.5	3.5	2.5	2.5
12	9.0	8.5	7.0	6.5	6.5	5.0	2.5	2.0	5.5	5.0	3.0	2.0
13	8.5	7.0	6.5	6.0	6.0	5.0	3.0	2.0	5.5	4.5	3.0	2.5
14	7.0	5.5	6.5	6.0	4.5	4.0	3.0	2.5	6.0	4.5	3.5	3.0
15	6.0	5.0	6.0	5.5	5.0	4.0	3.5	3.0	5.5	5.0	3.5	2.0
16	5.5	4.5	5.5	5.0	4.0	2.5	4.5	3.5	5.0	4.5	4.0	3.5
17	5.0	4.5	5.0	5.0	2.5	1.5	5.0	4.5	4.5	4.5	4.5	4.0
18	5.0	4.0	5.0	4.5	2.0	1.0	5.0	5.0	5.5	4.5	4.0	3.0
19	4.5	3.5	4.5	4.0	2.0	1.0	5.0	4.0	6.5	5.5	4.0	3.0
20	4.5	3.5	5.0	4.5	3.0	2.0	5.0	4.5	6.5	6.0	4.5	3.5
21	4.0	3.0	5.0	4.5	4.5	3.0	5.0	4.5	6.0	5.5	5.0	3.5
22	4.0	3.0	6.5	5.0	5.0	4.5	4.5	3.5	5.5	4.5	4.0	3.5
23	5.0	3.5	6.0	5.0	4.5	3.5	4.0	3.5	4.5	3.5	4.5	3.0
24	6.0	5.0	4.5	3.5	3.5	3.0	4.5	4.0	3.5	3.0	4.0	3.0
25	8.0	6.0	3.5	2.5	4.5	3.5	4.5	3.5	3.5	2.5	4.0	3.0
26	9.0	8.0	3.0	2.5	4.5	4.0	3.5	3.0	3.5	2.5	3.5	3.0
27	8.0	6.5	3.5	3.0	5.0	4.0	3.0	2.5	4.0	3.5	4.0	3.0
28	6.5	5.0	3.5	3.0	5.5	4.5	3.0	2.5	4.0	3.5	4.0	3.0
29	6.5	5.0	3.5	3.0	5.0	4.5	3.5	3.0	---	---	4.5	3.0
30	7.0	6.0	4.0	3.5	4.5	3.0	4.0	3.5	---	---	4.5	4.0
31	6.0	4.0	---	---	3.0	2.5	5.0	4.0	---	---	5.0	4.5
MONTH	10.5	3.0	8.5	2.5	6.5	1.0	5.0	.0	6.5	2.5	5.0	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.5	8.0	6.5	11.0	9.0	10.5	9.0	13.0	12.5	12.5	10.5
2	5.5	5.0	7.5	6.5	9.5	9.0	11.5	10.5	14.5	12.5	13.0	11.5
3	6.5	5.5	7.0	5.5	10.5	8.5	11.5	10.5	16.0	12.0	12.0	11.0
4	7.0	5.0	7.0	6.0	11.0	9.0	12.0	10.0	17.0	13.0	12.0	11.5
5	7.0	5.0	8.0	5.5	10.0	9.5	12.0	9.5	17.5	14.0	12.0	11.0
6	6.5	6.0	9.5	6.5	10.5	9.5	13.5	9.5	17.0	14.0	11.5	10.5
7	6.0	5.5	10.0	7.5	11.5	9.5	14.0	10.5	15.0	14.5	12.0	11.0
8	5.5	5.0	9.0	6.5	11.5	9.0	14.5	12.0	[illegible]	14.0	12.0	11.5
9	5.0	4.0	9.0	7.0	11.5	9.5	14.0	13.0	16.0	14.5	12.0	11.0
10	4.5	4.0	8.5	6.5	12.5	10.0	13.0	12.0	16.5	13.0	12.0	11.0
11	4.5	4.0	8.5	6.0	13.5	9.5	14.0	11.5	17.0	14.5	12.5	11.5
12	5.5	4.5	8.5	6.0	14.0	10.0	15.0	12.0	17.0	14.0	12.5	12.0
13	5.0	4.0	7.5	6.0	15.0	10.5	13.5	12.5	17.0	13.5	12.0	10.5
14	4.0	2.0	8.5	7.0	14.5	11.0	13.5	12.5	18.0	14.5	11.5	9.5
15	3.5	2.0	9.5	6.5	13.0	11.5	12.5	11.5	18.0	15.0	10.5	9.0
16	3.5	2.0	10.0	6.5	13.0	10.5	11.0	10.5	17.5	14.5	10.5	9.0
17	4.0	3.0	11.5	7.0	13.5	10.5	11.0	9.5	17.5	14.0	10.5	9.0
18	3.5	2.5	12.0	8.5	14.0	12.0	12.0	10.5	18.0	14.5	10.5	9.0
19	4.5	3.0	10.0	8.5	13.0	12.0	11.5	11.0	17.5	15.0	11.0	10.5
20	5.5	4.0	9.5	7.5	12.0	11.5	12.5	10.5	18.0	14.5	11.0	10.0
21	6.5	3.5	9.0	7.5	11.0	10.0	11.5	11.0	16.0	14.5	10.5	9.0
22	6.0	5.5	8.0	7.0	11.5	10.0	12.0	11.0	14.5	14.0	10.5	10.0
23	6.5	5.5	8.0	7.0	10.5	9.5	11.5	10.5	15.0	13.5	10.0	9.5
24	7.5	6.0	8.5	7.5	10.0	9.5	13.5	11.0	15.5	13.5	9.5	8.0
25	9.0	7.0	9.5	8.0	10.5	9.5	15.0	11.5	14.0	12.0	9.0	7.5
26	8.5	8.0	10.0	8.0	10.5	9.5	16.0	12.5	14.0	11.5	9.0	8.0
27	8.0	7.0	10.0	8.0	10.0	9.5	16.5	13.0	13.0	12.5	9.0	7.5
28	6.5	6.0	10.0	8.5	10.5	9.5	15.0	14.0	13.0	12.0	9.5	8.0
29	7.0	5.0	10.5	7.5	10.5	10.0	14.5	13.0	13.0	12.5	9.5	9.0
30	7.0	4.5	11.5	7.5	10.5	9.5	14.5	13.0	12.5	11.5	9.5	8.5
31	---	---	11.5	9.5	---	---	13.5	13.0	12.5	11.0	---	---
MONTH	9.0	2.0	12.0	4.5	15.0	8.5	16.5	9.0	18.0	11.0	13.0	7.5
YEAR	18.0	.0										

15083500 PERKINS CREEK NEAR METLAKATLA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	7.5	5.5	4.0	2.5	2.0	.5	.0				
2	7.5	6.5	4.0	4.0	2.0	1.5	.0	.0				
3	7.5	6.0	4.5	4.0	1.5	.5	.0	.0				
4	8.0	7.5	5.0	4.5	1.0	.5	.0	.0				
5	8.5	8.0	4.5	4.0	1.0	.5	.0	.0				
6	8.0	7.5	5.0	4.5	.5	.0	.5	.0				
7	8.5	8.0	4.5	4.0	.5	.0	.0	.0				
8	8.0	7.0	4.0	3.5	.5	.0	.5	.0				
9	7.0	6.0	3.5	3.0	.0	.0	.5	.0				
10	8.5	7.0	4.5	3.0	.5	.0	.0	.0				
11	10.0	9.0	6.0	4.5	.5	.0	.0	.0				
12	9.5	8.5	5.5	5.0	.5	.5	.0	.0				
13	8.5	8.0	5.5	4.5	.0	.0	.0	.0				
14	8.5	8.5	4.5	4.5	.5	.0	.0	.0				
15	9.0	8.5	4.5	4.0	.5	.5	.5	.0				
16	9.0	8.5	4.0	3.5	1.0	.5	.5	.5				
17	9.0	8.5	3.5	2.5	1.0	1.0	.5	.0				
18	9.0	8.0	2.0	1.5	1.0	.0	---	---				
19	7.0	6.0	1.5	1.0	1.0	.5	---	---				
20	6.5	6.0	1.0	.5	1.0	.5	---	---				
21	8.5	6.5	.5	.5	1.0	.5	---	---				
22	8.5	8.0	.5	.5	.5	.0	---	---				
23	7.5	6.5	.5	.5	.0	.0	---	---				
24	7.0	6.5	1.0	.5	.5	.0	---	---				
25	7.5	7.0	1.0	.5	1.0	.5	---	---				
26	7.5	6.5	1.0	.5	1.5	1.0	---	---				
27	7.0	7.0	1.5	1.0	1.5	1.0	---	---				
28	7.5	7.0	2.0	1.5	1.5	.5	---	---				
29	7.5	7.0	2.5	2.0	.5	.0	---	---				
30	7.0	6.5	2.5	2.0	1.0	.5	---	---				
31	6.0	5.5	---	---	1.0	.5	---	---				
MONTH	10.0	5.5	6.0	.5	2.5	.0	.5	.0				

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	13.5	10.0	12.5	11.0	17.5	13.5		
2			---	---	15.0	10.5	12.0	9.5	17.5	14.0		
3			---	---	15.5	11.5	12.5	11.5	16.0	14.0		
4			---	---	15.0	12.0	15.0	12.0	15.0	14.0		
5			---	---	15.0	11.5	14.5	13.0	14.0	13.0		
6			---	---	16.0	11.5	14.5	13.0	---	---		
7			---	---	14.0	12.0	15.0	13.0	---	---		
8			---	---	13.0	12.0	13.5	12.5	---	---		
9			---	---	13.0	10.5	13.5	12.0	---	---		
10			10.0	8.5	11.5	10.5	15.5	13.0	---	---		
11			9.5	7.5	12.5	11.0	15.0	12.5	---	---		
12			8.5	7.0	14.5	11.5	14.0	13.0	---	---		
13			9.5	7.0	14.5	12.5	14.0	12.0	---	---		
14			[illegible]	8.0	14.0	11.5	13.0	12.0	---	---		
15			11.0	9.5	13.5	11.5	13.0	12.5	---	---		
16			9.5	9.0	15.5	12.0	12.5	11.5	---	---		
17			9.5	8.0	13.5	11.5	13.0	10.5	---	---		
18			9.0	8.0	13.5	9.5	14.0	11.5	---	---		
19			10.0	8.5	14.5	10.5	16.0	11.5	---	---		
20			9.5	7.5	13.0	12.0	17.0	13.5	---	---		
21			9.5	6.5	15.0	11.0	17.5	13.5	---	---		
22			11.0	8.0	16.5	11.0	16.5	13.5	---	---		
23			12.0	8.5	17.0	13.0	15.0	13.5	---	---		
24			11.0	9.5	14.0	12.5	15.0	13.0	---	---		
25			10.0	9.0	13.0	12.0	15.5	13.5	---	---		
26			9.5	8.5	13.5	12.0	14.5	12.5	---	---		
27			8.5	7.5	13.5	12.5	14.0	13.0	---	---		
28			8.5	7.0	14.5	11.5	14.5	12.0	---	---		
29			9.0	8.0	14.5	10.5	15.5	11.5	---	---		
30			10.0	7.0	12.0	10.5	17.5	13.5	---	---		
31			12.0	8.5	---	---	17.5	13.5	---	---		
MONTH			12.0	6.5	17.0	9.5	17.5	9.5				
YEAR	17.5	.0										

15085100 OLD TOM CREEK NEAR KASAAN

LOCATION.--Lat 55°23'44", long 132°24'25", in SW¼NW¼ sec.6, T.75 S., R.86 E., Hydrologic Unit 19060000, on Prince of Wales Island, in Tongass National Forest, on left bank 1,000 ft (300 m) upstream from mouth at Skowl Arm of Kasaan Bay, 0.4 mi (0.6 km) downstream from unnamed tributary, and 10 mi (16 km) south of Kasaan.

DRAINAGE AREA.--5.90 mi² (15.28 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1949 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3 m), from topographic map.

REMARKS.--Water-discharge records good, except those for Oct. 8 to May 10, which are poor.

AVERAGE DISCHARGE.--29 years, 38.2 ft³/s (1.081 m³/s), 87.92 in/yr (2,233 mm/yr), 27,680 acre-ft/yr (34.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 883 ft³/s (25.0 m³/s) Apr. 16, 1952, gage height, 6.96 ft (2.121 m), from rating curve extended above 140 ft³/s (4.0 m³/s); minimum recorded, 0.16 ft³/s (0.005 m³/s) Nov. 15, 1965, gage height, 1.10 ft (0.335 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	2200	*1,030	29.2	*5.96	1.817	Oct. 27	0900	803	22.7	5.42	1.652

Minimum daily, 2.0 ft³/s (0.057 m³/s) Jan. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	28	30	2.1	30	7.8	11	164	18	6.3	2.9	14
2	14	33	21	2.1	42	6.5	10	88	17	5.8	2.8	9.8
3	10	74	17	2.1	43	5.8	11	44	16	5.8	2.8	13
4	13	196	13	2.1	30	7.8	12	29	16	5.7	3.1	11
5	19	65	12	2.0	201	9.6	14	20	15	5.6	4.2	8.3
6	18	107	12	2.0	163	105	17	16	15	5.6	6.9	6.9
7	44	44	11	2.0	138	138	26	16	14	5.4	34	6.0
8	102	30	9.5	2.1	111	114	97	16	14	6.0	22	5.3
9	142	21	9.3	2.1	46	46	215	14	15	7.0	12	4.8
10	220	56	9.2	2.1	50	38	74	19	14	6.1	9.6	4.7
11	420	229	9.1	2.2	32	19	28	19	20	5.5	8.3	4.5
12	328	169	9.4	2.2	17	14	20	41	16	6.0	7.2	25
13	210	183	9.9	2.3	13	13	16	39	14	6.3	6.5	26
14	127	168	27	2.4	15	10	14	26	13	5.9	6.6	67
15	193	66	33	2.4	25	14	12	24	12	5.3	6.2	43
16	140	37	11	2.5	19	20	10	22	11	5.4	6.1	44
17	190	26	9.2	2.7	76	14	9.6	21	11	5.4	7.6	23
18	98	18	7.1	2.9	57	13	11	19	11	5.0	8.5	15
19	49	15	6.2	3.3	130	15	11	24	9.8	4.6	6.7	111
20	32	12	6.2	3.8	52	17	13	21	9.6	4.5	5.6	43
21	332	12	5.8	4.8	94	13	16	17	9.1	4.3	5.0	39
22	191	11	4.7	6.0	87	10	17	16	8.7	4.1	4.6	41
23	55	26	4.2	15	31	15	15	16	8.4	4.2	4.4	36
24	162	28	3.8	105	18	110	14	15	7.8	3.9	4.2	46
25	478	23	3.5	75	14	136	17	16	7.8	3.7	3.9	23
26	340	42	3.0	23	11	42	24	22	7.5	3.6	3.9	16
27	592	32	3.0	14	9.6	41	19	101	7.4	3.3	3.7	49
28	390	64	2.8	11	8.5	28	15	59	6.9	3.3	3.6	129
29	71	71	2.4	8.9	---	18	32	31	6.6	3.2	5.0	45
30	43	46	2.3	7.1	---	14	135	23	6.5	3.0	5.7	38
31	29	---	2.2	13	---	13	---	19	---	2.9	16	---
TOTAL	5066	1932	309.8	330.2	1563.1	1067.5	935.6	1017	358.1	152.7	229.6	947.3
MEAN	163	64.4	9.99	10.7	55.8	34.4	31.2	32.8	11.9	4.93	7.41	31.6
MAX	592	229	33	105	201	138	215	164	20	7.0	34	129
MIN	10	11	2.2	2.0	8.5	5.8	9.6	14	6.5	2.9	2.8	4.5
CFSM	27.6	10.9	1.69	1.81	9.46	5.83	5.29	5.56	2.02	.84	1.26	5.36
IN.	31.94	12.18	1.95	2.08	9.85	6.73	5.90	6.41	2.26	.96	1.45	5.97
AC-FT	10050	3830	614	655	3100	2120	1860	2020	710	303	455	1880

CAL YR 1977 TOTAL 16199.8 MEAN 44.4 MAX 592 MIN 2.2 CFSM 7.53 IN 102.12 AC-FT 32130
WTR YR 1978 TOTAL 13908.9 MEAN 38.1 MAX 592 MIN 2.0 CFSM 6.46 IN 87.68 AC-FT 27590

15085100 OLD TOM CREEK NEAR KASAAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1959, and 1967, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.

INSTRUMENTATION.--Temperature recorder since October 1964.

REMARKS.--Records good except for missing period from Apr. 28 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 17.5°C Aug. 12, 14-18, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum not determined; minimum 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 18...	1600	98	36	7.0	8.0	--	--	--	--	--	--
MAY 10...	1530	16	40	7.3	6.5	9	.00	11.4	22	5	5.5

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 18...	--	--	--	--	--	--	--	.01	--	.00	--
MAY 10...	2.1	.7	1.3	21	0	3.1	2.3	--	.03	--	.01

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 18...	.11	--	.11	--	.12	.01	--	5.9	1	.26
MAY 10...	--	2.0	--	2.0	--	--	.00	--	1	.04

15085100 OLD TOM CREEK NEAR KASAAN--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	7.5	5.0	3.5	2.5	1.5	.0	.0	.0	.0	.5	.0
2	7.5	6.5	4.5	4.0	2.0	1.5	.0	.0	.0	.0	1.0	.5
3	7.5	6.0	4.5	4.0	1.5	.5	.0	.0	.0	.0	1.0	.5
4	8.0	7.5	5.0	4.5	1.0	.0	.0	.0	.0	.0	.5	.0
5	8.5	8.0	5.0	4.5	.0	.0	.0	.0	.5	.0	.0	.0
6	8.0	7.0	5.0	4.0	.0	.0	.0	.0	1.5	.5	.5	.0
7	8.0	7.5	4.5	4.0	.0	.0	.0	.0	2.0	1.5	1.5	1.0
8	8.5	7.0	4.0	3.5	.0	.0	.0	.0	2.0	1.5	2.0	1.5
9	8.5	7.5	3.5	2.5	.0	.0	.0	.0	2.0	1.5	2.0	1.5
10	8.0	7.5	3.0	2.5	.0	.0	.0	.0	1.5	1.0	2.0	1.5
11	9.5	8.0	4.5	3.0	.0	.0	.0	.0	2.0	1.0	2.0	1.0
12	9.0	8.0	4.5	4.0	.0	.0	.0	.0	1.5	1.0	1.5	1.0
13	8.5	8.0	4.5	4.0	.0	.0	.0	.0	1.0	.5	2.0	1.0
14	8.5	8.0	4.5	4.0	.0	.0	.0	.0	1.5	1.0	2.5	.5
15	8.5	8.0	4.0	3.5	.0	.0	.0	.0	1.5	1.0	2.0	1.5
16	8.0	7.5	3.5	2.5	1.0	.5	.0	.0	2.0	1.5	2.5	1.5
17	8.5	8.0	2.5	2.0	1.0	1.0	.5	.0	2.0	1.5	2.5	1.5
18	8.0	7.0	2.0	1.0	1.5	1.0	.5	.5	2.0	1.5	2.5	2.0
19	7.0	6.0	1.0	.5	1.0	.5	.5	.5	2.5	2.0	3.0	2.0
20	6.5	6.0	.5	.0	1.0	.0	.5	.0	2.0	1.5	3.0	2.0
21	7.5	6.5	.5	.0	1.5	1.0	.5	.0	2.5	1.5	3.0	2.0
22	7.5	7.0	.0	.0	1.5	.0	1.0	.5	2.0	1.5	3.5	2.0
23	7.0	6.0	.0	.0	.0	.0	1.0	.5	2.0	1.5	3.5	2.5
24	6.5	6.0	.0	.0	.0	.0	1.5	.5	1.5	1.0	3.0	2.0
25	7.0	6.5	.0	.0	.5	.0	1.5	1.0	1.0	.5	3.0	2.5
26	7.0	6.5	.5	.0	1.0	.5	1.5	1.0	1.0	.5	3.0	2.0
27	6.5	6.5	2.0	1.0	1.0	1.0	1.0	.0	1.0	.5	3.5	2.0
28	7.0	6.5	2.0	1.0	1.0	1.0	1.0	.0	.5	.0	3.5	2.0
29	6.5	6.5	2.5	2.0	1.0	.0	1.5	1.0	---	---	3.5	1.5
30	6.5	5.5	2.5	2.0	.0	.0	1.0	.0	---	---	3.0	1.5
31	5.5	5.0	---	---	.0	.0	.0	.0	---	---	4.0	2.5
MONTH	9.5	5.0	5.0	.0	2.5	.0	1.5	.0	2.5	.0	4.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.5	1.5										
2	4.0	2.5										
3	4.0	2.5										
4	5.0	2.5										
5	5.0	3.0										
6	4.0	2.5										
7	4.0	3.0										
8	3.5	2.5										
9	3.5	2.5										
10	4.0	3.0										
11	4.5	3.0										
12	4.5	3.5										
13	5.0	2.5										
14	4.5	2.5										
15	4.5	1.5										
16	4.0	2.0										
17	5.0	3.0										
18	4.5	2.5										
19	5.0	2.5										
20	5.5	3.0										
21	5.0	3.5										
22	5.5	3.5										
23	5.0	4.0										
24	6.0	3.5										
25	5.0	3.5										
26	3.5	3.0										
27	3.0	2.0										
28	2.0	---										
29	---	---										
30	---	---										
31	---	---										
MONTH	6.0	1.5										

15086600 BIG CREEK NEAR POINT BAKER

LOCATION.--Lat 56°07'54", long 133°08'30", Hydrologic Unit 19010000, on Prince of Wales Island, in Tongass National Forest, on left bank 1 mi (1.6 km) upstream from mouth at Whale Passage, 2.5 mi (4.5 km) downstream from small unnamed lake, and 24 mi (39 km) southeast of Point Baker.

DRAINAGE AREA.--11.2 mi² (29.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--13 years, 87.8 ft³/s (2.487 m³/s), 106.46 in/yr (2,704 mm/yr), 63,610 acre-ft/yr (78.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD: Maximum discharge, 2,390 ft³/s (67.7 m³/s) Sept. 5, 1966, gage height, 5.28 ft (1.609 m), from rating curve extended above 300 ft³/s (8.5 m³/s); minimum daily, 0.8 ft³/s (0.023 m³/s) Aug. 25, 28, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 952 ft³/s (27.0 m³/s) Jan. 23 (1930 hrs), gage height, 3.91 ft (1.192 m), from rating curve extended above 300 ft³/s (8.5 m³/s), only peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 8.8 ft³/s (0.249 m³/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	122	89	16	37	30	54	150	140	41	14	167
2	41	103	73	17	31	27	51	200	130	38	15	113
3	33	101	63	16	26	25	49	210	122	36	15	79
4	32	103	56	13	23	23	47	170	117	35	15	62
5	55	97	50	13	42	21	48	145	110	33	20	52
6	44	175	44	14	111	19	52	120	103	31	122	43
7	77	142	39	14	126	41	64	100	102	29	160	37
8	107	115	35	14	122	93	81	88	101	27	219	32
9	82	97	31	12	97	126	128	83	103	25	117	29
10	87	91	31	10	86	133	200	80	105	23	91	27
11	655	254	35	9.8	70	87	170	78	100	22	75	47
12	595	216	44	9.2	55	69	138	79	97	20	59	64
13	553	257	50	9.0	44	58	112	88	94	19	54	122
14	627	377	46	8.8	37	52	100	97	91	17	72	115
15	543	377	39	8.9	33	48	88	98	88	16	57	302
16	424	234	33	9.1	32	65	78	99	80	15	46	210
17	558	165	30	9.3	33	65	70	110	76	13	59	124
18	398	109	27	9.7	48	79	60	120	74	12	62	87
19	234	59	25	12	145	140	57	125	71	11	51	222
20	135	40	29	17	173	140	60	120	62	10	42	310
21	99	31	24	26	122	128	65	112	54	10	38	247
22	175	25	20	24	186	105	74	102	51	9.4	35	222
23	155	26	17	260	126	72	86	93	48	9.4	31	133
24	124	30	19	284	89	91	93	88	46	11	28	97
25	111	39	16	212	69	93	95	91	44	11	28	82
26	142	63	16	128	55	99	97	100	45	12	31	65
27	198	180	17	87	46	95	110	135	46	12	31	52
28	228	200	18	67	36	93	128	215	47	12	27	70
29	234	140	17	52	---	75	120	235	46	12	32	111
30	175	110	16	42	---	61	110	180	44	13	65	124
31	147	---	14	40	---	56	---	155	---	14	135	---
TOTAL	7119	4078	1063	1463.8	2100	2309	2685	3866	2437	598.8	1846	3447
MEAN	230	136	34.3	47.2	75.0	74.5	89.5	125	81.2	19.3	59.5	115
MAX	655	377	89	284	186	140	200	235	140	41	219	310
MIN	32	25	14	8.8	23	19	47	78	44	9.4	14	27
CFSM	20.5	12.1	3.06	4.21	6.70	6.65	7.99	11.2	7.25	1.72	5.31	10.3
IN.	23.64	13.54	3.53	4.86	6.97	7.67	8.92	12.84	8.09	1.99	6.13	11.45
AC-FT	14120	8090	2110	2900	4170	4580	5330	7670	4830	1190	3660	6840

CAL YR 1977 TOTAL 28406.6 MEAN 77.8 MAX 655 MIN 7.0 CFSM 6.95 IN 94.34 AC-FT 56340
WTR YR 1978 TOTAL 33012.6 MEAN 90.4 MAX 655 MIN 8.8 CFSM 8.07 IN 109.64 AC-FT 65480

15086600 BIG CREEK NEAR POINT BAKER--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 30, 1963.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C June 13, 1969; minimum 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum, 20.0°C Aug. 2; minimum 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAR												
22...	1500	75	130	7.0	5.5	.00	11.0	65	9	25	.7	1.5
JUL												
21...	1400	10	140	8.8	19.0	--	10.5	77	11	29	1.0	1.9

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR												
22...	.4	68	0	2.9	9.9	.11	.01	.26	.27	.01	3	.61
JUL												
21...	.2	70	5	3.9	2.7	.03	.02	.35	.37	.01	2	.05

15086600 BIG CREEK NEAR POINT BAKER--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	8.0	6.0	5.5	3.5	2.5	.0	.0	.0	.0	3.0	.5
2	10.5	7.5	5.5	5.0	3.0	2.5	.0	.0	.0	.0	1.5	.0
3	10.5	7.5	5.5	5.0	2.5	1.5	.0	.0	.5	.0	2.0	.5
4	9.0	8.5	5.5	5.5	1.5	.5	.0	.0	.5	.5	2.0	.5
5	10.5	8.5	5.5	5.0	.5	.5	.0	.0	2.0	.5	3.5	.5
6	10.0	8.0	5.0	4.5	.5	.5	.0	.0	2.5	2.0	4.0	1.5
7	9.0	8.5	5.0	4.0	.5	.0	.0	.0	2.5	2.0	3.0	2.5
8	9.5	8.0	4.5	3.5	.0	.0	.0	.0	2.5	2.0	3.5	2.5
9	9.5	8.5	3.5	3.0	.0	.0	.5	.0	3.0	2.0	3.0	2.0
10	8.5	8.0	3.5	3.0	.0	.0	.5	.5	3.0	2.0	4.0	2.5
11	9.0	8.0	4.0	3.0	.5	.0	.5	.5	2.5	2.0	4.0	2.0
12	8.5	8.5	4.5	4.0	.5	.5	.5	.5	2.5	1.0	3.5	2.0
13	8.5	8.0	4.5	4.5	.5	.5	.5	.5	2.0	1.0	4.0	2.0
14	8.5	8.0	4.5	4.5	1.0	.5	.5	.5	3.0	2.0	4.5	2.0
15	8.5	8.0	4.5	4.5	.5	.5	.5	.5	3.5	2.0	3.5	3.0
16	8.0	8.0	4.5	3.5	.5	.5	.5	.5	3.0	2.0	4.0	2.5
17	8.5	8.0	4.0	3.0	.5	.5	.5	.5	3.5	2.5	5.0	3.0
18	8.0	7.5	3.0	2.0	.5	.5	.5	.5	3.0	2.5	3.5	3.0
19	8.0	7.5	2.0	1.5	1.0	.5	.5	.5	3.0	2.5	4.0	3.0
20	7.5	7.0	1.5	.5	.5	.0	.5	.5	3.0	2.5	4.0	3.0
21	7.5	7.0	1.0	.5	1.5	.5	.5	.5	3.5	2.5	4.5	3.0
22	8.0	7.0	.5	.5	1.0	.5	.5	.5	3.0	2.5	5.0	3.0
23	7.5	6.5	.5	.5	.5	.0	1.0	.5	3.5	2.0	4.0	3.0
24	7.5	6.5	.5	.5	.5	.0	2.0	.5	3.5	2.0	4.5	3.5
25	7.5	7.0	1.5	.5	.5	.5	2.5	2.0	3.5	1.5	4.5	3.0
26	7.0	6.5	3.0	2.0	1.5	.5	2.5	1.5	3.5	1.5	4.5	3.0
27	7.0	7.0	3.0	3.0	2.0	1.5	2.0	1.0	3.5	1.0	4.5	3.5
28	7.0	7.0	3.0	3.0	2.0	1.0	2.0	1.0	3.5	1.0	5.5	3.0
29	7.0	7.0	3.0	3.0	1.0	.5	2.5	1.0	---	---	6.0	2.5
30	7.0	6.0	3.0	3.0	.5	.5	1.0	.5	---	---	5.5	2.5
31	6.5	6.0	---	---	.5	.0	.5	.0	---	---	5.0	3.5
MONTH	10.5	6.0	6.0	.5	3.5	.0	2.5	.0	3.5	.0	6.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	3.5	8.0	6.5	14.5	11.5	13.5	11.5	19.0	15.0	14.0	12.0
2	6.0	3.5	7.5	6.0	18.0	11.0	13.0	11.0	20.0	16.0	14.0	11.5
3	7.5	4.0	8.5	6.0	20.0	12.0	12.0	9.5	18.5	16.5	14.5	12.0
4	8.0	3.5	8.5	6.0	17.0	13.0	16.0	11.5	17.5	14.0	15.5	11.0
5	9.0	5.0	9.0	6.5	19.0	11.5	16.5	13.5	15.5	11.0	16.0	11.5
6	8.0	3.5	9.0	6.5	20.5	12.0	16.0	13.5	16.5	11.0	16.0	12.0
7	6.5	5.0	9.5	7.5	16.5	12.5	17.5	13.5	14.0	12.0	15.0	11.5
8	5.0	4.5	10.0	7.5	14.5	12.0	15.0	13.0	16.0	13.0	15.0	11.0
9	4.5	3.0	11.0	7.5	14.0	11.0	16.5	12.5	15.5	14.5	14.5	10.0
10	5.0	4.0	13.5	7.0	15.0	10.5	18.5	12.0	16.5	14.5	13.5	10.5
11	5.0	4.0	13.0	7.5	17.5	12.0	19.5	13.0	18.0	14.5	14.0	11.0
12	5.5	4.0	11.5	8.5	18.5	12.5	16.0	13.5	18.0	14.0	12.5	10.5
13	7.0	4.0	14.5	7.5	19.0	12.5	15.5	12.5	15.5	13.0	13.0	11.5
14	7.5	4.0	15.5	8.5	17.0	12.0	14.0	13.0	16.0	13.0	12.0	10.5
15	8.0	3.5	13.0	10.0	15.5	13.5	13.5	12.5	16.5	13.5	11.0	10.5
16	7.0	4.0	11.0	9.5	16.0	13.0	13.5	12.0	18.0	12.5	12.5	10.5
17	9.0	5.0	12.0	8.0	14.5	12.5	16.0	11.0	15.0	10.0	12.5	10.0
18	8.0	4.0	10.0	8.0	14.5	10.5	17.0	12.0	15.0	10.0	12.0	10.0
19	8.0	4.5	10.5	8.0	16.0	11.5	19.5	13.0	17.0	12.5	10.5	9.0
20	11.0	5.0	10.5	8.0	14.0	12.5	17.5	15.0	16.5	12.5	10.5	10.0
21	11.0	6.5	13.5	8.0	17.0	12.0	16.0	13.5	15.5	13.5	10.0	10.0
22	11.0	6.5	15.0	9.0	19.0	12.0	17.0	14.0	17.0	13.0	10.5	9.5
23	10.0	6.0	15.5	9.5	18.5	14.0	15.5	14.0	17.5	12.5	10.5	9.5
24	12.5	6.0	13.5	11.0	15.0	13.5	15.5	14.0	18.0	10.0	11.5	9.5
25	9.5	7.5	12.0	9.5	13.5	12.5	16.0	13.5	15.0	14.0	11.5	9.5
26	10.5	8.0	11.5	9.0	13.0	12.0	16.5	13.5	16.5	13.5	11.5	8.5
27	11.5	6.5	10.5	9.0	13.0	11.0	15.0	14.0	18.0	14.0	10.5	10.5
28	10.5	7.0	10.5	8.5	14.5	11.5	17.0	13.0	16.5	13.0	10.5	10.0
29	8.5	7.5	12.0	9.0	16.0	10.0	18.0	13.5	15.5	12.5	10.0	10.0
30	9.0	7.0	13.5	8.0	14.0	11.0	19.0	15.5	13.5	12.0	11.0	9.0
31	---	---	14.5	10.5	---	---	19.0	15.0	12.5	12.0	---	---
MONTH	12.5	3.0	15.5	6.0	20.5	10.0	19.5	9.5	20.0	10.0	16.0	8.5
YEAR	20.5	.0										

15086060 SUNRISE LAKE OUTLET NEAR WRANGELL

LOCATION.--Lat 56°24'44", long 132°29'30", in NE¼NW¼ sec.17, T.63 S., R.83 E., Hydrologic Unit 19060000, on Woronkofski Island, in Tongass National Forest, on left bank of lake outlet and 5.0 mi (8.0 km) southwest of Wrangell.

DRAINAGE AREA.--1.17 mi^2 (3.03 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (594 m), from topographic map.

REMARKS.--Records poor. Satellite telemeter at station.

EXTREMES FOR CURRENT PERIOD.--September 1977: Maximum discharge during month, 37 ft^3/s (1.05 m^3/s) Sept. 22, gage height, 3.51 ft (1.070 m), minimum daily discharge, 2.5 ft^3/s (0.071 m^3/s) Sept. 3-4.

Water year 1978: Maximum discharge, 207 ft^3/s (5.86 m^3/s) Oct. 11, gage height, 4.21 ft (1.283 m); minimum daily discharge, 2.0 ft^3/s (0.057 m^3/s) Nov. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1977
MEAN VALUES

DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP	DAY	SEP
1	3.2	6	6.1	11	7.5	16	5.1	21	6.7	26	6.0
2	2.8	7	5.1	12	8.9	17	4.3	22	29	27	5.1
3	2.5	8	8.0	13	10	18	3.8	23	17	28	4.5
4	2.5	9	8.3	14	7.5	19	5.3	24	10	29	3.9
5	5.5	10	6.8	15	6.1	20	7.3	25	7.5	30	11

SEPTEMBER TOTAL - 219.1 MEAN - 7.30 MAX - 29 MIN - 2.5 CFSM - 6.24 IN. - 6.96 AC-FT - 435

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	9.0	7.0	3.8	3.4	2.6	2.1	20	29	7.5	3.4	12
2	7.0	7.7	6.1	3.8	3.3	2.6	2.1	21	34	7.3	3.2	8.6
3	5.6	7.1	5.3	3.8	3.0	2.5	2.1	14	35	13	3.1	7.0
4	5.3	7.1	5.1	3.7	3.1	2.5	2.1	10	32	13	2.7	5.9
5	5.0	7.3	4.6	3.7	3.5	2.5	2.2	9.2	25	10	3.1	4.8
6	4.4	8.2	4.4	3.7	4.0	2.6	2.6	8.0	25	8.4	6.6	4.3
7	5.3	6.8	4.1	3.7	3.7	2.7	2.7	9.2	26	7.3	17	4.0
8	8.9	6.2	3.8	3.8	4.0	3.0	3.0	14	29	6.3	26	3.4
9	8.5	5.3	3.7	3.9	3.4	2.6	3.3	14	26	6.0	14	3.2
10	15	5.1	3.6	4.0	3.2	2.5	4.0	14	20	5.6	13	3.1
11	151	14	4.0	4.1	3.1	2.4	3.6	15	17	5.3	9.5	3.0
12	66	14	4.3	4.2	2.9	2.4	3.3	19	17	6.9	8.0	3.2
13	48	11	4.7	4.2	2.9	2.4	3.2	21	17	9.1	8.0	3.8
14	69	9.1	5.0	4.1	2.9	2.4	3.1	20	18	7.3	15	7.8
15	53	6.6	4.4	3.9	2.8	2.3	3.1	20	16	8.2	13	21
16	46	5.1	4.4	3.8	2.8	2.3	3.1	23	15	11	9.2	16
17	48	4.2	4.3	3.8	2.8	2.3	3.2	28	21	9.1	9.2	9.2
18	27	3.4	4.3	3.8	2.9	2.3	3.3	25	16	7.1	11	7.8
19	16	2.9	4.2	3.8	3.0	2.3	3.3	64	13	5.9	8.9	15
20	9.6	2.6	4.2	3.8	4.0	2.3	3.4	38	13	5.0	6.6	15
21	11	2.4	4.2	3.8	3.6	2.3	3.8	22	14	4.5	5.9	13
22	34	2.3	4.1	3.9	3.8	2.2	5.0	19	14	3.8	5.9	13
23	18	2.1	4.1	4.2	3.6	2.2	6.0	20	12	3.8	5.9	9.2
24	11	2.0	4.0	4.8	3.3	2.6	8.0	21	10	4.0	4.9	7.5
25	14	2.5	4.0	7.0	3.0	3.0	11	24	8.7	3.8	4.4	5.1
26	29	4.6	4.0	5.6	2.9	2.7	20	29	12	4.0	4.3	5.3
27	28	4.3	3.9	5.0	2.8	2.4	23	29	15	4.0	4.3	6.3
28	26	5.7	3.9	4.4	2.7	2.3	17	27	12	4.1	4.1	8.3
29	27	6.8	3.9	4.0	---	2.2	12	24	9.1	4.3	4.0	15
30	17	6.1	3.9	3.8	---	2.2	12	20	7.6	4.3	4.3	13
31	12	---	3.8	3.7	---	2.1	---	21	---	3.8	6.1	---
TOTAL	835.1	181.5	135.3	127.6	90.4	75.7	176.6	662.4	558.4	203.7	244.6	254.8
MEAN	26.9	6.05	4.36	4.12	3.23	2.44	5.89	21.4	18.6	6.57	7.89	8.49
MAX	151	14	7.0	7.0	4.0	3.0	23	64	35	13	26	21
MIN	4.4	2.0	3.6	3.7	2.7	2.1	2.1	8.0	7.6	3.8	2.7	3.0
CFSM	23.0	5.17	3.73	3.52	2.76	2.09	5.03	18.3	15.9	5.62	6.74	7.26
IN.	26.53	5.77	4.30	4.05	2.87	2.40	5.61	21.04	17.74	6.47	7.77	8.09
AC-FT	1660	360	268	253	179	150	350	1310	1110	404	485	505

WTR YR 1978 TOTAL 3546.1 MEAN 9.72 MAX 151 MIN 2.0 CFSM 8.31 IN 112.65 AC-FT 7030

15086960 SUNRISE LAKE OUTLET NEAR WRANGELL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (UNITS)	TEMPER-ATURE (DEG C)
APR				
18...	1621	3.3	6.8	.5

15087570 HAMILTON CREEK NEAR KAKE

LOCATION.--Lat 56°52'21", long 133°40'30", in SE¼NE¼ sec.1, T.58 S., R.74 E., Hydrologic Unit 19060000, on Kupreanof Island, in Tongass National Forest, 2.9 mi (4.7 km) upstream from mouth at Hamilton Bay and 12 mi (19 km) southeast of Kake.

DRAINAGE AREA.--65 mi^2 (168.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximums, water years 1972-76. October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 25 ft, (8 m), from topographic map. Prior to October 1976, crest-stage gage at same datum.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft^3/s (241 m^3/s) Jan. 30, 1976, gage height, 14.97 ft (4.563 m), from floodmarks at present site and datum, from rating curve extended above 2,400 ft^3/s (68 m^3/s); minimum daily, 11 ft^3/s (0.31 m^3/s) Aug. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,050 ft^3/s (115 m^3/s) Oct. 11, gage height, 12.25 ft (3.734 m), from rating curve extended above 2,400 ft^3/s (68 m^3/s); minimum daily, 19 ft^3/s (0.54 m^3/s) Jan. 8 and 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	199	83	38	29	38	89	200	366	130	34	562
2	98	127	75	33	27	35	79	740	257	95	30	196
3	66	125	69	28	26	32	68	484	104	115	28	108
4	29	392	63	27	25	31	61	267	70	95	26	79
5	104	285	56	24	29	35	57	175	56	68	28	64
6	91	536	51	21	35	43	53	122	45	54	175	54
7	236	300	47	20	46	80	70	93	39	46	257	48
8	555	156	43	19	60	485	111	83	38	41	592	43
9	343	115	39	23	95	300	200	85	56	39	224	39
10	198	106	35	31	192	180	575	77	54	34	452	36
11	1620	555	36	38	176	110	740	68	51	30	382	36
12	1910	672	40	50	138	85	540	68	46	31	161	53
13	757	1080	61	58	93	70	360	70	38	56	100	193
14	196	1570	85	51	70	79	133	62	33	62	184	326
15	162	828	106	44	51	108	105	54	29	93	202	517
16	131	366	130	34	44	229	94	49	26	278	118	417
17	114	169	160	27	38	271	86	54	38	108	181	178
18	104	120	180	25	46	205	81	85	43	68	230	111
19	96	238	175	23	55	173	77	577	36	49	122	1030
20	218	382	133	21	79	216	79	362	31	39	81	745
21	225	338	107	19	142	272	78	135	46	34	102	513
22	1590	271	80	23	108	229	84	87	45	30	172	517
23	448	196	56	45	80	185	91	64	35	34	106	253
24	193	158	40	90	68	161	106	53	29	42	75	145
25	243	169	35	235	58	190	129	46	29	56	61	104
26	420	137	58	100	52	248	158	61	38	56	54	83
27	1260	112	70	57	46	355	143	100	61	51	59	75
28	667	105	80	47	43	272	110	237	54	81	51	214
29	480	98	70	43	---	190	89	404	46	61	53	537
30	417	90	60	36	---	140	78	391	89	46	113	395
31	338	---	47	34	---	108	---	135	---	38	296	---
TOTAL	13459	9995	2370	1364	1951	5155	4724	5488	1928	2060	4749	7671
MEAN	434	333	76.5	44.0	69.7	166	157	177	64.3	66.5	153	256
MAX	1910	1570	180	235	192	485	740	740	366	278	592	1030
MIN	29	90	35	19	25	31	53	46	26	30	26	36
CFSM	6.68	5.12	1.18	.68	1.07	2.55	2.42	2.72	.99	1.02	2.35	3.94
IN.	7.70	5.72	1.36	.78	1.12	2.95	2.70	3.14	1.10	1.18	2.72	4.39
AC-FT	26700	19830	4700	2710	3870	10220	9370	10890	3820	4090	9420	15220

CAL YR 1977 TOTAL 81933 MEAN 224 MAX 2410 MIN 11 CFSM 3.45 IN 46.89 AC-FT 162500
WTR YR 1978 TOTAL 60914 MEAN 167 MAX 1910 MIN 19 CFSM 2.57 IN 34.86 AC-FT 120800

15087570 HAMILTON CREEK NEAR KAKE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT					
05...	1215	116	38	6.2	6.5
APR					
18...	0930	84	35	7.5	4.0
JUL					
24...	1430	44	37	--	15.0

15087590 ROCKY PASS CREEK NEAR POINT BAKER

LOCATION.--Lat 57°37'03", long 133°44'10", in SW¼SE¼ sec.34, T.60 S., R.74 E., Hydrologic Unit [illegible], on Kuiu Island, in Tongass National Forest, on left bank 0.5 mi (0.8 km) upstream from mouth and 22 mi (35 km) northwest of Point Baker.

DRAINAGE AREA.--3.27 mi^2 (8.47 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 65 ft (19.8 m), from topographic map.

REMARKS.--Water-discharge records fair except those for Dec. 2 to Mar. 4, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 519 ft^3/s (14.7 m^3/s) Oct. 10, 1977, gage height, 5.15 ft (1.570 m), from rating curve extended above 40 ft^3/s (1.1 m^3/s); minimum daily, 0.15 ft^3/s (0.004 m^3/s) Aug. 31, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 519 ft^3/s (14.7 m^3/s) Oct. 10, gage height, 5.15 ft (1.570 m); minimum daily, 0.15 ft^3/s (0.004 m^3/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.0	23	1.7	1.7	2.1	4.7	7.9	9.3	1.2	.21	15
2	4.9	5.3	17	1.5	1.6	1.9	5.1	21	4.3	1.9	.18	4.5
3	3.3	7.9	12	1.3	1.4	1.8	4.9	12	2.1	18	.15	2.4
4	12	8.4	8.0	1.2	1.3	1.7	4.0	6.2	1.4	16	.20	1.6
5	11	6.0	6.0	1.1	5.0	1.6	3.1	4.1	1.1	3.0	.39	1.1
6	5.5	27	4.0	1.0	20	3.2	2.7	2.7	.94	1.7	11	.90
7	24	9.0	3.0	1.3	16	30	27	1.9	.86	1.3	29	.73
8	19	6.7	2.0	1.6	12	26	12	1.6	1.4	1.1	20	.68
9	9.0	4.7	1.9	2.0	9.0	15	81	1.5	1.2	1.3	8.6	.50
10	30	4.0	1.8	3.2	10	12	35	1.2	.94	1.0	13	.47
11	175	51	1.8	3.5	7.0	6.9	8.4	1.0	.71	.64	7.2	.57
12	49	39	3.0	1.7	5.0	5.8	23	2.0	.64	2.4	3.4	10
13	31	38	5.0	1.5	3.0	3.1	10	9.0	.51	4.0	3.8	11
14	57	49	8.0	1.3	2.0	4.5	4.9	3.1	.45	2.0	11	26
15	56	41	15	1.2	3.0	5.9	3.1	1.7	.34	6.4	4.3	24
16	94	10	10	1.1	5.0	22	2.1	2.6	.40	6.4	2.8	6.8
17	87	5.3	13	1.0	7.0	10	1.9	6.2	.57	3.3	13	3.4
18	35	6.2	12	.90	10	8.2	2.0	14	.40	1.6	6.8	2.2
19	16	4.7	9.0	.80	9.0	21	1.7	50	.34	1.2	3.4	59
20	7.4	3.4	12	5.0	8.0	13	2.1	7.7	.30	.94	1.9	34
21	12	3.0	16	9.0	7.0	14	1.7	3.0	.34	.71	2.5	28
22	31	3.6	8.0	6.0	6.0	9.0	1.9	2.1	.34	.57	2.1	25
23	12	5.3	5.0	12	5.0	11	1.6	1.5	.25	.71	1.6	6.7
24	6.2	3.3	3.0	25	4.0	23	1.4	1.0	.18	.64	1.1	4.6
25	4.7	6.8	1.5	5.0	3.4	19	1.5	1.3	.21	.78	.90	2.9
26	9.0	47	3.0	3.5	2.9	20	8.8	3.3	1.2	.76	.86	2.0
27	20	40	4.0	3.0	2.6	19	4.9	3.3	1.7	.55	.77	1.8
28	13	56	3.5	2.6	2.4	18	3.0	9.7	1.4	.53	.62	22
29	25	37	3.0	2.3	---	9.0	2.7	13	.94	.39	2.1	23
30	23	22	2.5	2.0	---	5.8	3.8	5.1	.86	.34	6.2	14
31	15	---	2.0	1.9	---	4.9	---	3.8	---	.26	22	---
TOTAL	906.6	559.6	219.0	106.20	170.3	348.4	270.0	204.5	35.62	81.62	181.08	334.85
MEAN	29.2	18.7	7.06	3.43	6.08	11.2	9.00	6.60	1.19	2.63	5.84	11.2
MAX	175	56	23	25	20	30	81	50	9.3	18	29	59
MIN	3.3	3.0	1.5	.80	1.3	1.6	1.4	1.0	.18	.26	.15	.47
CFSM	8.93	5.72	2.16	1.05	1.86	3.43	2.75	2.02	.36	.80	1.79	3.43
IN.	10.31	6.36	2.49	1.21	1.94	3.96	3.07	2.33	.41	.93	2.06	3.81
AC-FT	1800	1110	434	211	338	691	536	406	71	162	359	664

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CAL YR 1977  TOTAL  3705.60   MEAN 10.2   MAX 175   MIN  .68   CFSM 3.12   IN 42.14   AC-FT 7350
WTR YR 1978  TOTAL  3417.77   MEAN  9.36  MAX 175   MIN  .15   CFSM 2.86   IN 38.87   AC-FT 6780
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15087590 ROCKY PASS CREEK NEAR POINT BAKER--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February to September 1978.

INSTRUMENTATION.--Temperature recorder since Feb. 1, 1978.

REMARKS.--Interruptions in the record were due to malfunctions of the instruments. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURE: Maximum, 19.5°C July 29 to Aug. 3 and Aug. 8; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
FEB 01...	1230	1.8	--	--	.5	.00	11.8	6	1.4	.5	2.0	.2
APR 18...	1230	1.6	<25	5.6	4.5	--	12.1	--	--	--	--	--
JUL 25...	1100	.03	--	--	11.5	--	11.0	5	.6	.8	2.6	.1

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
FEB 01...	--	--	5.2	3.8	1.6	--	--	.48	.15	--	--
APR 18...	3	0	--	--	--	--	--	--	--	--	--
JUL 25...	--	--	6.7	2.7	.02	.09	.91	1.0	.02	1	.00

SOUTHEAST ALASKA

15087590 ROCKY PASS CREEK NEAR POINT BAKER--Continued

TEMPERATURE (DEG. C) OF WATER, FEBRUARY TO SEPTEMBER 1976

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									.0	.0	.0	.0
2									.0	.0	.0	.0
3									.0	.0	.0	.0
4									.0	.0	.0	.0
5									.0	.0	.0	.0
6									.0	.0	.0	.0
7									.0	.0	.0	.0
8									.0	.0	.0	.0
9									.0	.0	.5	.0
10									.0	.0	1.0	.0
11									.0	.0	.5	.0
12									.0	.0	.0	.0
13									.0	.0	1.0	.0
14									.0	.0	1.0	.0
15									.0	.0	1.0	.5
16									.0	.0	.5	.5
17									.0	.0	1.5	.5
18									.0	.0	1.0	1.0
19									.0	.0	1.0	1.0
20									.0	.0	1.5	.5
21									.0	.0	1.5	1.0
22									.5	.0	2.0	1.0
23									.5	.0	1.5	1.0
24									.0	.0	2.0	1.0
25									.0	.0	2.0	1.0
26									.0	.0	1.5	.5
27									.0	.0	2.0	1.0
28									.0	.0	2.0	1.0
29									---	---	2.0	1.0
30									---	---	3.0	1.0
31									---	---	3.0	2.0
MONTH									.5	.0	3.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.0	2.0	6.0	5.5	10.5	9.0	15.0	14.0	19.5	16.5	17.0	16.0
2	3.0	2.0	6.0	5.0	13.0	9.5	14.5	14.0	19.5	17.0	16.5	14.5
3	3.5	2.5	6.0	4.5	13.5	10.0	14.5	14.0	19.5	16.5	16.0	14.5
4	3.0	1.5	6.0	4.0	12.0	10.5	17.0	14.5	18.0	17.0	15.0	13.0
5	3.5	1.5	7.0	4.0	12.0	9.0	17.5	16.0	18.0	17.0	15.5	13.0
6	3.0	1.0	7.0	4.0	---	---	18.0	16.5	18.0	16.0	15.5	13.5
7	3.0	2.0	7.5	6.0	---	---	18.0	15.5	17.0	17.0	14.5	10.5
8	3.5	2.5	7.5	5.5	---	---	16.5	16.0	19.5	17.0	---	---
9	3.0	2.0	7.5	5.0	---	---	18.0	15.0	19.0	17.5	---	---
10	4.0	2.5	8.0	5.0	---	---	18.0	15.0	18.0	17.0	---	---
11	4.0	2.5	9.0	6.0	---	---	18.5	15.0	18.5	17.0	---	---
12	3.5	2.5	8.5	7.0	---	---	16.5	15.5	18.0	16.0	---	---
13	4.0	2.0	8.5	6.0	---	---	17.0	15.0	17.5	17.0	---	---
14	4.0	2.5	9.0	5.5	---	---	16.0	15.0	17.5	16.5	---	---
15	3.5	1.5	9.5	7.0	---	---	15.5	15.0	18.0	16.5	---	---
16	3.5	1.0	8.0	7.0	---	---	16.0	15.0	17.5	15.0	---	---
17	5.0	2.5	8.0	5.5	---	---	17.0	15.0	17.0	16.5	---	---
18	4.5	2.5	7.0	7.0	---	---	17.5	15.0	17.5	16.5	---	---
19	---	---	9.0	7.0	---	---	18.0	15.0	17.0	15.0	---	---
20	6.5	5.5	8.0	6.5	---	---	18.5	16.5	16.0	14.0	---	---
21	6.5	4.5	9.5	5.5	---	---	18.5	15.5	16.5	15.5	---	---
22	6.5	4.5	10.5	7.0	---	---	17.0	16.0	16.5	15.0	---	---
23	7.0	4.5	10.0	7.0	---	---	17.5	16.0	17.0	14.5	---	---
24	7.0	4.0	9.5	8.0	---	---	17.0	16.0	17.0	14.5	---	---
25	6.5	5.5	9.0	8.0	---	---	17.0	16.0	17.0	15.5	---	---
26	7.0	6.0	8.0	7.0	---	---	17.5	15.5	17.5	16.0	---	---
27	7.0	5.0	8.0	7.0	---	---	18.5	14.5	18.5	16.5	---	---
28	6.5	4.0	7.5	7.0	---	---	18.0	15.5	17.5	15.0	---	---
29	6.0	5.5	9.0	7.0	---	---	19.5	15.5	18.0	17.0	---	---
30	6.0	5.5	9.0	6.5	---	---	19.5	16.5	17.0	16.5	---	---
31	---	---	10.0	8.5	---	---	19.5	15.5	17.0	16.5	---	---
MONTH	7.0	1.0	10.5	4.0			19.5	14.0	19.5	14.0	17.0	10.5
YEAR	19.5	.0										

15087610 NAKWASINA RIVER NEAR SITKA

LOCATION.--Lat 57°15'37", long 135°19'54", in NW¼SW¼ sec.24, T.53 S., R.63 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Baranof Island, in Tongass National Forest, on left bank 0.7 mi (1.1 km) upstream from mouth at Nakwasina Bay and 15 mi (24.1 km) north of Sitka.

DRAINAGE AREA.--31.9 mi^2 (82.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage 20 ft (6.1 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft^3/s (422 m^3/s) Sept. 12, 1977, gage height, 7.61 ft (2.320 m), from rating curve extended above 510 ft^3/s (14.4 m^3/s); minimum daily, 33 ft^3/s (0.93 m^3/s), Jan. 17-18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,370 ft^3/s (124 m^3/s) Oct. 17, gage height, 4.82 ft (1.469 m), minimum daily, 33 ft^3/s (0.93 m^3/s) Jan 17-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382	212	70	40	74	84	53	311	1000	670	279	228
2	300	178	62	40	73	76	55	463	750	595	279	226
3	246	170	58	39	70	71	54	332	721	548	272	215
4	212	208	54	38	65	68	53	290	631	519	262	206
5	182	170	51	37	64	66	53	245	579	495	244	196
6	151	175	49	37	88	62	55	215	624	448	229	187
7	172	159	46	34	81	62	76	235	631	419	220	184
8	205	143	43	34	97	64	83	267	561	389	262	181
9	178	127	42	34	88	66	143	267	502	355	253	170
10	212	111	41	36	88	66	199	260	431	334	271	161
11	519	107	41	38	84	64	143	275	411	326	275	161
12	765	107	40	37	79	61	146	302	442	363	251	157
13	685	118	40	36	76	62	141	319	457	408	225	161
14	1560	138	39	35	74	62	136	341	463	368	265	238
15	1580	134	39	35	74	59	129	345	436	434	312	943
16	1290	122	39	34	71	62	124	328	507	460	287	731
17	2170	109	45	33	70	64	120	328	925	366	337	494
18	1300	103	44	33	70	61	124	336	651	329	365	369
19	579	95	43	34	136	61	134	416	605	307	302	943
20	411	88	40	34	161	66	156	387	671	343	264	837
21	377	83	39	37	124	71	196	349	624	356	291	582
22	772	76	39	37	136	65	225	391	548	377	271	437
23	479	73	38	48	131	59	225	421	507	416	253	333
24	354	70	37	164	118	58	218	406	478	410	243	272
25	502	65	38	161	111	59	242	401	435	431	242	224
26	507	68	50	109	103	58	368	421	505	402	247	191
27	447	68	50	97	95	57	341	507	704	339	216	167
28	363	70	48	92	90	57	279	513	593	323	195	155
29	341	81	46	90	---	55	242	442	479	293	190	168
30	302	74	44	84	---	54	264	431	554	283	194	176
31	245	---	42	79	---	53	---	743	---	281	207	---
TOTAL	17788	3502	1397	1716	2591	1953	4777	11287	17425	12387	8003	9693
MEAN	574	117	45.1	55.4	92.5	63.0	159	364	581	400	258	323
MAX	2170	212	70	164	161	84	368	743	1000	670	365	943
MIN	151	65	37	33	64	53	53	215	411	281	190	155
CFSM	18.0	3.67	1.41	1.74	2.90	1.98	4.98	11.4	18.2	12.5	8.09	10.1
IN.	20.74	4.08	1.63	2.00	3.02	2.28	5.57	13.16	20.32	14.44	9.33	11.30
AC-FT	35280	6950	2770	3400	5140	3870	9480	22390	34560	24570	15870	19230

CAL YR 1977 TOTAL 113006 MEAN 310 MAX 5470 MIN 37 CFSM 9.72 IN 131.78 AC-FT 224100
WTR YR 1978 TOTAL 92519 MEAN 253 MAX 2170 MIN 33 CFSM 7.93 IN 107.89 AC-FT 183500

15087610 NAKWASINA RIVER NEAR SITKA--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1976 to current year.

INSTRUMENTATION.--Temperature recorder since Sept. 4, 1976.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 10.0°C Aug. 15, 20, 1977; minimum, 1.5°C Jan. 7, 1978.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 9.0°C Aug. 8, 11; minimum, 1.5°C Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC TANCE (MICRO-MHOS	TEMPER-ATURE (DEG C)
OCT				
06...	1015	155	56	6.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	6.0	5.5	5.0	4.5	4.0	2.5	2.5	3.5	3.0	4.0	2.5
2	7.0	6.0	5.5	5.0	4.0	3.5	3.0	2.5	4.0	3.0	3.5	2.5
3	7.0	6.0	5.5	5.0	3.5	3.0	3.0	3.0	3.5	3.0	3.5	2.5
4	7.0	6.5	5.5	4.5	3.5	2.5	3.0	2.5	4.5	3.5	4.0	2.5
5	7.0	6.5	5.0	5.0	2.5	2.0	2.5	2.0	5.0	4.0	4.0	3.0
6	7.0	6.5	5.0	4.5	2.5	2.0	2.5	2.0	4.0	3.5	5.0	3.5
7	6.5	6.0	5.0	4.5	2.5	2.0	2.5	1.5	4.5	3.5	4.5	4.0
8	6.5	6.0	5.0	4.0	2.5	2.0	3.5	2.5	4.0	3.5	4.5	4.0
9	6.5	5.5	4.5	4.5	2.5	2.0	4.0	3.5	4.5	3.5	4.5	3.5
10	6.5	6.0	5.0	4.5	3.0	2.0	4.0	3.5	4.5	3.5	4.5	3.5
11	7.0	6.5	5.0	4.5	4.0	3.0	4.0	3.5	4.5	4.0	5.0	3.5
12	6.5	5.0	5.0	4.5	4.0	3.0	4.0	3.5	4.0	3.5	4.5	3.5
13	6.5	6.0	5.0	4.5	4.0	3.5	4.0	3.5	4.0	3.5	4.0	3.0
14	6.5	6.0	5.0	4.5	4.5	3.5	4.0	3.5	5.0	4.0	4.5	3.5
15	6.5	6.0	5.0	4.0	4.0	3.5	4.0	3.5	4.5	4.0	4.0	4.0
16	6.5	6.0	4.5	4.5	4.0	4.0	4.0	3.5	4.5	4.0	4.0	3.5
17	6.0	4.0	4.5	4.0	4.0	4.0	4.0	4.0	4.5	4.0	4.5	3.5
18	6.0	5.0	4.5	4.0	4.0	3.5	4.0	3.5	4.5	4.0	4.5	3.5
19	5.5	4.5	4.5	4.0	4.0	3.5	4.0	3.5	4.5	2.5	4.5	3.5
20	5.5	5.0	4.0	3.5	4.0	3.5	4.5	4.0	4.0	3.0	3.5	2.5
21	6.0	5.0	4.5	4.0	3.5	3.0	4.0	3.5	4.5	3.0	4.0	3.0
22	6.0	5.0	4.0	3.5	3.0	3.0	4.0	3.5	4.0	3.5	5.0	3.0
23	5.5	5.0	3.5	3.0	3.0	3.0	4.0	2.5	4.5	3.5	5.0	3.5
24	5.5	5.0	4.0	3.0	4.0	3.0	2.5	2.0	4.5	3.5	5.0	3.5
25	6.0	5.5	4.5	4.0	4.0	4.0	3.0	2.0	4.5	3.0	5.0	3.5
26	6.0	5.0	5.0	4.5	4.0	3.5	2.5	2.5	4.5	3.5	5.5	3.5
27	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	4.5	3.5	5.5	4.0
28	6.0	5.5	4.5	4.0	3.5	3.5	4.0	3.0	4.5	3.5	5.5	3.5
29	6.0	5.5	4.5	4.0	3.5	3.0	4.0	4.0	---	---	5.0	3.0
30	6.0	4.0	4.5	4.0	3.0	3.0	4.0	3.0	---	---	5.5	3.5
31	6.0	5.0	---	---	3.0	2.5	3.5	3.0	---	---	5.0	4.0
MONTH	7.0	4.0	5.5	3.0	4.5	2.0	4.5	1.5	5.0	2.5	5.5	2.5

15087610 NAKWASINA RIVER NEAR SITKA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.5	4.0	5.5	3.5	5.0	3.5	5.5	5.0	8.5	6.5	8.5	6.5
2	5.0	3.5	4.0	3.0	6.5	3.5	5.5	4.5	7.5	6.5	8.0	6.5
3	5.5	3.5	4.0	3.0	6.5	3.5	5.5	5.0	8.5	6.5	8.0	6.5
4	6.0	3.5	4.5	3.5	5.0	4.0	6.5	5.0	7.5	6.5	8.0	6.5
5	6.0	3.5	4.5	3.5	6.5	4.0	6.0	5.0	8.0	6.5	7.0	6.5
6	4.5	3.5	5.0	3.5	7.0	4.0	6.0	5.0	8.5	6.5	7.5	6.5
7	4.0	3.5	5.0	3.5	5.0	4.0	6.5	5.0	7.0	6.5	7.0	6.5
8	4.5	3.0	4.5	3.5	5.0	4.0	6.0	5.0	9.0	7.0	8.0	6.5
9	3.5	3.0	4.5	3.5	5.5	4.0	6.0	5.0	7.5	7.0	8.0	6.0
10	3.5	2.5	6.0	3.5	6.0	3.5	6.5	5.0	7.5	7.0	7.0	6.5
11	4.0	3.0	6.0	3.5	7.0	4.0	7.5	5.0	9.0	7.0	7.5	6.5
12	5.0	3.0	5.0	3.5	7.5	4.0	6.5	5.5	8.0	6.5	7.0	7.0
13	5.5	3.0	6.0	3.5	7.0	4.0	6.0	5.5	7.0	6.5	7.5	6.5
14	5.5	3.0	6.5	3.0	5.0	4.5	6.0	5.0	7.5	6.5	7.5	6.5
15	5.5	3.0	4.5	3.5	5.5	4.5	6.5	4.0	7.5	7.0	7.5	7.0
16	5.5	3.0	4.5	3.5	5.0	4.5	6.5	5.5	8.0	7.0	7.5	6.5
17	5.5	3.0	4.5	3.5	5.0	4.0	7.0	4.5	8.0	7.0	7.5	6.0
18	5.5	3.5	4.5	3.5	5.0	4.0	7.5	5.5	8.5	6.5	7.0	6.5
19	5.5	3.0	4.5	3.5	5.0	4.5	6.5	5.5	8.5	6.5	7.5	6.5
20	6.0	3.0	5.0	3.5	5.5	4.5	7.0	6.0	7.0	6.5	7.0	6.5
21	5.5	3.0	6.0	3.0	7.5	4.5	6.5	5.5	7.5	7.0	6.5	6.5
22	5.5	3.0	6.5	3.5	7.0	4.5	6.5	6.0	8.0	5.0	7.0	6.0
23	5.0	3.0	6.0	3.0	6.0	4.5	6.5	6.0	8.5	6.5	7.0	6.0
24	5.5	3.0	4.5	3.5	5.5	4.5	6.5	6.0	8.5	6.5	7.0	6.0
25	5.0	3.5	5.0	3.5	5.0	4.5	6.5	6.0	8.0	6.5	7.5	6.0
26	4.5	3.0	5.0	3.5	5.5	5.0	7.0	4.0	8.0	7.0	7.0	6.0
27	5.0	3.0	5.0	3.5	5.0	5.0	7.0	4.0	8.5	6.5	7.5	6.5
28	4.5	3.0	5.0	3.0	6.0	4.5	7.5	6.0	8.5	6.5	7.0	6.5
29	5.0	3.0	4.5	3.5	6.5	4.0	8.5	5.5	8.5	7.0	7.0	6.5
30	4.5	3.5	5.0	3.5	5.0	5.0	8.5	4.0	7.5	5.0	7.0	6.5
31	---	---	4.5	4.0	---	---	8.5	6.0	8.0	7.0	---	---
MONTH	6.0	2.5	6.5	3.0	7.5	3.5	8.5	4.0	9.0	5.0	8.5	6.0
YEAR	9.0	1.5										

15093400 SASHIN CREEK NEAR BIG PORT WALTER

LOCATION.--Lat 56°22'32", long 134°39'40", in NW¼SW¼ sec.28, T.63 S., R.69 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Baranof Island, in Tongass National Forest, on right bank 0.7 mi (1.1 km) upstream from mouth at Little Port Walter, 1 mi (1.6 km) downstream from Sashin Lake, and 2.6 mi (4.2 km) east of Big Port Walter.

DRAINAGE AREA.--3.72 mi^2 (9.63 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to September 1973 and October 1974 to current year.

REVISED RECORDS.--WSP 2136: Drainage area. WRD Alaska 1972: 1971 (M).

GAGE.--Water-stage recorder. Altitude of gage is 100 ft (30 m), from topographic map.

REMARKS.--Water-discharge records fair. Satellite telemeter at station.

AVERAGE DISCHARGE.--12 years, 80.7 ft^3/s (2.285 m^3/s), 294.60 in/yr (7,483 mm/yr), 58,470 acre-ft/yr (72.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,650 ft^3/s (75.1 m^3/s) Nov. 2, 1976, gage height, 5.30 ft (1.65 m), from rating curve extended above 760 ft^3/s (21.5 m^3/s) on basis of slope-area measurement of peak flow at gage height of 4.5 ft (1.37 m) from floodmarks; maximum gage height, 5.35 ft (1.631 m) Mar. 12, 1971, backwater from ice; minimum discharge, 0.75 ft^3/s (0.021 m^3/s) Jan. 30, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 14	2100	1,490	42.2	4.65	1.417	Oct. 26	2400	857	24.3	4.14	1.262
Oct. 16	1600	*1,600	45.3	*4.72	1.439	Sept.14	0445	929	26.3	4.21	1.283
Oct. 21	2000	973	27.6	4.25	1.295	Sept.19	0915	1,390	39.4	4.58	1.396

Minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) Aug. 3 and 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	84	36	14	21	20	39	236	118	21	6.6	163
2	27	66	29	14	18	16	33	280	85	39	6.4	88
3	24	181	25	12	17	17	33	154	76	126	6.0	61
4	165	334	21	15	16	16	28	100	68	83	6.0	45
5	122	168	19	23	80	15	28	73	60	56	43	33
6	66	147	17	27	70	27	27	55	54	45	55	27
7	178	88	18	24	56	52	84	49	52	37	56	22
8	108	63	13	22	106	46	53	49	70	31	54	19
9	70	46	11	46	56	40	82	46	55	27	53	16
10	190	35	11	30	48	38	66	41	46	24	46	15
11	301	39	12	22	49	32	70	39	40	21	34	14
12	177	90	15	19	34	29	74	59	36	20	29	231
13	127	104	125	18	24	31	47	61	34	19	25	129
14	702	115	51	17	28	26	58	54	33	18	23	471
15	517	79	53	15	37	35	35	50	31	21	21	215
16	708	53	43	14	34	33	32	80	30	20	18	126
17	393	42	34	12	42	27	34	69	35	17	32	80
18	240	33	29	11	51	42	33	128	35	15	25	67
19	139	27	28	11	117	51	32	107	31	14	21	733
20	132	19	25	67	40	40	32	78	29	13	18	401
21	263	16	21	49	54	35	38	62	28	12	17	325
22	273	14	18	32	49	31	45	54	26	11	15	204
23	145	12	17	92	31	29	43	54	25	11	14	121
24	97	16	21	214	27	66	42	49	23	11	13	91
25	93	35	45	54	27	60	51	103	21	10	11	63
26	290	59	32	49	25	43	127	97	21	9.6	10	48
27	533	99	28	43	23	41	75	208	21	8.9	9.6	83
28	265	84	25	45	26	37	72	209	21	8.4	9.0	299
29	387	55	20	36	---	29	90	189	20	7.7	37	149
30	183	46	17	30	---	26	137	114	21	7.2	177	99
31	124	---	16	24	---	40	---	112	---	6.9	198	---
TOTAL	7073	2249	875	1101	1206	1070	1640	3059	1245	770.7	1088.6	4438
MEAN	228	75.0	28.2	35.5	43.1	34.5	54.7	98.7	41.5	24.9	35.1	148
MAX	708	334	125	214	117	66	137	280	118	126	198	733
MIN	24	12	11	11	16	15	27	39	20	6.9	6.0	14
CFSM	61.3	20.2	7.58	9.54	11.6	9.27	14.7	26.5	11.2	6.69	9.44	39.8
IN.	70.71	22.48	8.75	11.01	12.06	10.70	16.40	30.58	12.45	7.70	10.88	44.37
AC-FT	14030	4460	1740	2180	2390	2120	3250	6070	2470	1530	2160	8800

CAL YR 1977 TOTAL 27772.7 MEAN 76.1 MAX 708 MIN 8.7 CFSM 20.5 IN 277.65 AC-FT 55090
WTR YR 1978 TOTAL 25815.3 MEAN 70.7 MAX 733 MIN 6.0 CFSM 19.0 IN 258.08 AC-FT 51200

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-73 and 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to September 1973, October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 24, 1966.

REMARKS.--Temperature recorder malfunctioned prior to Nov. 16 and after Feb. 24.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 17.0°C July 14, 1968; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum not determined; minimum, 0.0°C on many days during winter.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
OCT				
05...	1145	96	30	8.0

TEMPERATURE (DEG. C) OF WATER, NOVEMBER 1977 TO FEBRUARY 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	2.5	2.0	1.0	.5	1.0	.5		
2			---	---	2.5	2.0	1.0	.5	1.5	.5		
3			---	---	2.0	1.0	1.0	1.0	1.0	1.0		
4			---	---	1.5	1.5	1.0	.0	1.0	.0		
5			---	---	1.0	.5	.0	.0	1.0	.0		
6			---	---	.5	.5	.0	.0	2.0	1.0		
7			---	---	.5	.0	.0	.0	2.0	1.5		
8			---	---	.5	.0	1.0	.0	2.0	2.0		
9			---	---	.5	.5	1.5	.5	2.0	2.0		
10			---	---	1.0	.5	1.0	.5	2.0	2.0		
11			---	---	1.0	.5	1.5	1.0	2.0	2.0		
12			---	---	1.5	.5	1.5	1.5	2.0	1.5		
13			---	---	2.0	1.5	1.5	1.5	2.0	1.0		
14			---	---	1.5	.5	1.5	1.5	2.0	1.5		
15			---	---	2.0	1.0	1.5	1.5	2.0	1.5		
16			---	---	2.0	1.5	1.5	1.5	2.0	.5		
17			2.5	2.0	2.0	1.0	1.5	1.0	2.0	.5		
18			2.5	2.0	2.0	1.5	2.0	1.0	2.0	.5		
19			2.5	2.0	2.0	1.5	1.5	1.0	2.0	1.0		
20			2.0	1.5	2.0	.5	1.5	.5	2.5	2.0		
21			2.0	1.5	2.0	1.5	1.5	1.5	2.5	1.5		
22			2.0	1.5	1.5	1.0	2.0	1.0	2.5	2.0		
23			1.5	1.0	1.5	.5	1.5	.5	2.0	2.0		
24			1.5	.5	2.0	1.0	2.0	1.0	---	---		
25			1.5	.0	2.0	1.0	2.0	2.0	---	---		
26			1.5	1.0	1.5	1.0	2.5	2.0	---	---		
27			2.0	1.0	2.0	1.5	2.0	2.0	---	---		
28			2.0	1.0	2.0	1.5	2.0	2.0	---	---		
29			2.5	2.0	1.5	1.0	2.0	2.0	---	---		
30			2.5	1.5	1.0	1.0	2.0	1.5	---	---		
31			---	---	1.0	.5	1.0	1.0	---	---		
MONTH			2.5	.0	2.5	.0	2.5	.0	2.5	.0		

15101200 KALININ BAY TRIBUTARY NEAR SITKA

LOCATION.--Lat 57°18'14", long 135°46'35", in SE¼NW¼ sec.6, T.53 S., R.61 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Kruzof Island, in Tongass National Forest , on right bank 0.25 mi (0.4 km) upstream from mouth at Kalinin Bay and 25 mi (40 km) northwest of Sitka.

DRAINAGE AREA.--2.28 mi^2 (5.91 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 25 ft (7.6 m), from topographic map.

REMARKS.--Water-discharge records good except those for Nov. 19 to Mar. 3, which are poor. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft^3/s (14.6 m^3/s) Sept. 15, 1976, gage height, 4.24 ft (1.292 m); minimum daily, 1.4 ft^3/s (0.04 m^3/s) Aug. 6, 7, 1977 and Sept. 10, 1978.

EXTREMES FOR CURRENT YEAR.- Maximum discharge, 350 ft^3/s (9.91 m^3/s) Oct. 14, gage height, 3.59 ft (1.094 m); minimum daily, 1.4 ft^3/s (0.04 m^3/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	5.0	2.9	3.6	4.5	14	58	57	15	3.9	4.3
2	11	13	4.8	2.7	3.5	4.0	14	82	21	29	3.5	3.1
3	7.0	34	4.2	2.6	3.6	3.5	9.6	29	12	54	3.2	2.5
4	6.0	68	3.9	3.1	3.7	3.6	7.7	35	8.7	28	2.7	2.2
5	5.3	29	3.4	3.7	4.0	4.1	6.9	20	9.8	14	2.7	2.1
6	4.6	40	3.0	4.0	4.5	5.6	12	13	8.3	10	2.7	2.0
7	24	20	2.8	4.8	5.2	18	84	17	6.7	8.1	2.8	1.7
8	19	13	2.6	5.4	6.4	27	29	23	5.9	6.7	6.2	1.8
9	9.8	9.7	2.3	6.0	5.5	24	119	17	5.2	6.1	9.3	1.6
10	33	9.5	2.6	6.4	4.8	19	67	12	4.5	5.8	19	1.4
11	77	11	2.9	6.2	4.0	9.7	22	11	4.1	5.6	9.6	1.6
12	51	37	3.1	5.4	3.7	6.7	34	11	3.7	7.7	5.6	5.0
13	42	38	3.3	4.8	3.4	8.9	16	9.5	3.3	11	6.4	4.4
14	188	38	3.8	4.2	3.1	7.2	9.9	8.2	3.3	13	20	35
15	114	24	4.3	3.7	2.9	9.1	7.3	8.0	3.1	27	14	29
16	100	14	4.0	3.2	3.7	19	6.1	15	7.9	15	8.0	16
17	83	10	3.7	2.9	4.4	15	5.3	23	37	8.4	15	9.2
18	73	8.2	3.5	2.6	5.4	19	5.1	32	25	6.4	10	7.1
19	32	7.2	3.2	2.4	7.5	37	5.7	39	17	5.4	6.4	150
20	21	4.8	3.0	2.7	10	23	7.3	23	26	5.2	5.7	90
21	29	4.0	2.8	3.1	12	28	10	15	19	5.6	28	26
22	59	3.8	2.7	3.6	10	11	12	13	10	7.8	9.0	20
23	32	3.8	2.5	6.6	8.8	7.5	9.9	11	8.7	12	5.8	11
24	28	4.0	2.3	12	8.0	9.5	7.4	8.6	8.5	11	4.4	8.3
25	16	4.3	2.3	9.0	7.0	13	8.5	9.0	8.3	16	3.7	6.9
26	40	4.6	2.7	6.8	6.2	11	33	11	26	11	3.3	6.2
27	88	5.0	3.0	5.2	5.5	9.9	14	11	31	7.8	2.8	5.8
28	23	5.4	3.5	4.2	4.9	16	13	18	20	8.1	2.6	9.6
29	77	5.8	3.9	3.9	---	9.6	11	14	12	6.7	2.3	64
30	36	5.6	3.6	3.7	---	8.3	16	12	10	5.4	2.7	20
31	26	---	3.3	3.6	---	8.0	---	107	---	4.6	3.9	---
TOTAL	1370.7	491.7	102.0	141.4	155.3	399.7	616.7	715.3	423.0	377.4	225.2	547.8
MEAN	44.2	16.4	3.29	4.56	5.55	12.9	20.6	23.1	14.1	12.2	7.26	18.3
MAX	188	68	5.0	12	12	37	119	107	57	54	28	150
MIN	4.6	3.8	2.3	2.4	2.9	3.5	5.1	8.0	3.1	4.6	2.3	1.4
CFSM	19.4	7.19	1.44	2.00	2.43	5.66	9.04	10.1	6.18	5.35	3.18	8.03
IN.	22.35	8.02	1.66	2.31	2.53	6.52	10.08	11.67	6.90	6.15	3.67	8.93
AC-FT	2720	975	202	280	308	793	1220	1420	839	749	447	1090

CAL YR 1977 TOTAL 7448.7 MEAN 20.4 MAX 188 MIN 1.4 CFSM 8.95 IN 121.48 AC-FT 14770
WTR YR 1978 TOTAL 5566.2 MEAN 15.2 MAX 188 MIN 1.4 CFSM 6.67 IN 90.78 AC-FT 11040

15101200 KALININ BAY TRIBUTARY NEAR SITKA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1976 to current year.

INSTRUMENTATION.--Temperature recorder since Sept. 1, 1976.

REMARKS.--Records good except for period, Sept. 2-30, when recorder malfunctioned.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 14.0°C July 26-28, Aug. 3, 5, 1977; minimum 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 13.5°C Aug. 8; minimum 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 06...	1515	4.4	56	--	7.0	6	.00	--	--	.8	--
MAR 30...	1630	8.1	60	6.7	3.0	--	.00	14	4.6	.5	3.1
JUN 22...	1200	10	47	--	8.0	--	--	11	3.9	.4	2.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 06...	--	4.6	--	.05	--	.00	--	.10	--	.10	--
MAR 30...	.4	2.8	3.0	--	.05	--	.03	--	.17	--	.20
JUN 22...	.2	4.7	3.9	--	.03	--	.00	--	.12	--	.12

DATE	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	TANNIN AND LIGNIN (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 06...	.15	.00	--	<10	60	30	.9	10	.2	0	.00
MAR 30...	--	--	.00	--	--	--	--	--	--	3	.07
JUN 22...	--	--	.00	--	--	--	--	--	--	--	--

15101200 KALININ BAY TRIBUTARY NEAR SITKA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	5.5	4.0	3.0	1.5	.5	.0	.0	.0	.0	.0	.0
2	7.0	5.0	3.0	2.5	.5	.0	.0	.0	.0	.0	.0	.0
3	6.5	5.5	3.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0
4	7.5	6.5	3.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0
5	7.0	5.5	3.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
6	7.5	6.5	3.5	2.5	.0	.0	.0	.0	1.0	.0	.0	.0
7	7.5	7.0	3.0	2.0	.0	.0	.0	.0	1.5	1.0	.0	.0
8	7.0	6.0	2.5	1.5	.0	.0	.0	.0	1.5	1.5	1.0	.0
9	7.0	6.0	1.5	1.0	.0	.0	.0	.0	2.0	1.0	1.5	.5
10	7.5	6.0	1.5	.5	.0	.0	.0	.0	1.5	1.0	1.0	.5
11	8.0	7.5	3.0	.5	.0	.0	.0	.0	1.5	1.0	1.5	.5
12	7.5	7.0	2.0	1.0	.0	.0	.0	.0	1.0	.5	1.5	.5
13	7.0	6.5	2.5	2.0	.0	.0	.0	.0	.5	.0	1.5	1.0
14	8.0	6.5	2.5	2.5	.0	.0	.5	.0	2.0	.5	2.5	.5
15	8.0	7.5	2.5	1.5	.0	.0	.5	.0	1.5	1.0	2.0	1.5
16	7.5	7.0	2.0	.5	.0	.0	.5	.5	2.0	1.0	2.0	1.0
17	7.5	7.0	.5	.0	.0	.0	.5	.5	2.0	1.5	2.0	1.0
18	7.0	5.0	.0	.0	.0	.0	1.0	.5	2.0	1.5	2.0	1.0
19	5.5	4.5	.0	.0	.0	.0	1.0	.5	2.0	1.0	2.0	1.5
20	5.5	5.0	.0	.0	.0	.0	1.0	.0	2.0	1.0	2.0	1.0
21	6.0	5.5	.0	.0	.0	.0	1.0	.0	2.0	1.0	2.0	1.0
22	7.0	5.5	.0	.0	.0	.0	1.0	.5	2.0	1.5	2.5	.5
23	5.5	5.0	.0	.0	.0	.0	1.5	.5	2.0	1.0	2.5	1.0
24	5.5	5.0	.0	.0	.5	.0	1.5	1.0	1.5	.5	2.5	1.5
25	6.0	5.0	.0	.0	.0	.0	1.5	1.0	1.5	.0	2.5	2.0
26	6.0	5.5	.0	.0	.0	.0	1.0	.0	1.5	1.0	2.5	1.0
27	6.0	5.5	.5	.0	.5	.0	.0	.0	1.0	.0	3.0	2.0
28	6.0	5.5	1.0	.5	1.0	.5	.5	.0	1.0	.0	3.0	1.5
29	6.0	5.5	1.5	1.5	.5	.0	1.0	.5	---	---	2.5	1.0
30	5.5	4.5	1.5	1.0	.0	.0	1.0	.0	---	---	3.0	1.5
31	4.5	4.0	---	---	.0	.0	.0	.0	---	---	3.0	2.0
MONTH	8.0	4.0	4.0	.0	1.5	.0	1.5	.0	2.0	.0	3.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.0	2.0	4.5	3.5	6.5	6.0	8.5	7.5	12.5	10.0	11.0	9.0
2	3.5	2.0	4.0	3.0	9.5	6.0	8.0	7.5	11.5	10.5	---	---
3	3.5	1.5	4.5	3.0	10.0	6.0	8.0	7.5	13.0	10.0	---	---
4	3.5	1.0	4.5	3.5	8.5	7.0	9.0	7.5	11.5	10.5	---	---
5	4.0	1.5	5.0	3.5	7.5	7.0	9.5	8.0	11.5	10.0	---	---
6	3.5	2.5	5.5	3.0	10.5	6.5	9.5	8.0	12.5	9.5	---	---
7	2.5	2.0	5.5	4.5	11.0	7.0	9.5	8.0	11.5	10.0	---	---
8	3.0	1.5	5.0	4.0	10.5	8.0	9.0	8.0	13.5	10.5	---	---
9	2.5	2.0	5.0	4.0	10.0	8.0	9.0	8.5	12.0	10.5	---	---
10	2.5	2.0	7.0	3.5	10.5	7.5	9.0	8.0	10.5	10.0	---	---
11	3.5	2.0	7.0	3.5	11.5	8.0	10.5	8.5	12.0	9.0	---	---
12	3.5	2.0	6.0	4.5	12.5	8.5	10.0	9.0	11.0	10.0	---	---
13	4.0	1.5	8.0	3.5	10.0	9.0	9.5	8.5	10.5	10.0	---	---
14	4.5	2.0	8.5	3.5	9.5	8.0	8.5	8.0	10.0	9.5	---	---
15	4.5	1.5	6.5	4.5	9.5	8.0	9.0	8.0	11.0	9.5	---	---
16	4.0	1.0	5.5	5.0	9.0	8.0	10.0	7.5	10.5	10.0	---	---
17	4.5	2.0	5.5	4.0	8.0	7.0	9.5	7.0	10.5	9.5	---	---
18	5.5	2.5	5.5	4.5	7.5	7.0	10.5	8.0	11.5	8.5	---	---
19	5.5	2.5	6.0	5.0	8.0	7.0	10.5	9.0	11.5	8.5	---	---
20	6.0	3.0	6.0	4.5	8.0	7.5	11.0	9.5	10.5	9.5	---	---
21	6.5	3.5	8.0	4.5	9.0	7.5	10.5	9.5	10.5	9.5	---	---
22	5.0	4.0	8.5	4.0	9.0	7.5	10.0	9.5	10.5	9.0	---	---
23	5.5	2.5	7.0	5.5	9.5	7.5	10.0	9.0	11.0	8.0	---	---
24	6.0	2.5	7.0	5.5	9.0	7.5	10.0	9.0	11.0	8.5	---	---
25	5.5	4.0	7.0	5.5	8.5	7.5	9.5	8.5	11.0	9.5	---	---
26	4.5	3.5	7.0	5.0	8.0	7.5	10.0	8.5	12.5	10.0	---	---
27	5.0	2.5	7.5	5.5	8.0	7.0	10.5	8.5	11.5	9.0	---	---
28	5.0	3.5	7.0	5.0	8.5	7.0	10.5	8.5	11.0	8.5	---	---
29	5.5	3.0	6.5	5.0	10.0	6.5	12.0	8.0	11.5	10.5	---	---
30	5.5	4.0	6.5	5.5	8.5	7.5	12.5	9.0	11.0	10.5	---	---
31	---	---	7.0	6.0	---	---	13.0	9.0	11.0	10.0	---	---
MONTH	6.5	1.0	8.5	3.0	12.5	6.0	13.0	7.0	13.5	8.0		
YEAR	13.5	.0										

15102350 NORTH ARM CREEK NEAR ANGOON

LOCATION.--Lat 57°23'48", long 134°19'24", in SW¼SW¼ sec.3, T.52 S., R.69 E., Hydrologic Unit 19060000, on Admiralty Island, in Tongass National Forest, 1,300 ft (400 m) above mouth at North Arm Hood Bay and 12 mi 19 km) southeast of Angoon.

DRAINAGE AREA.--8.64 mi ^{2} (22.38 km^2).

PERIOD OF RECORD.--Water years 1972-75, 1977, and 1978 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to January 1972, June to November 1972, April to July 1973, June to December 1974, July 1975, March 1977 to July 1978.

INSTRUMENTATION.--Temperature recorder operated sporadically since Oct. 5, 1971.

REMARKS.--Temperature recorder malfunctioned Feb. 21 to Apr. 12.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, 25.5°C June 16 and July 10, 1973; minimum recorded, 0.5°C Apr. 2-3, 1973.

EXTREMES FOR CURRENT PERIOD.--
WATER TEMPERATURES: Maximum recorded, 11.0°C July 9; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1977 TO JULY 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.5	---	4.5	4.0	5.0	5.0	4.0	3.5	.5	.5		
2	6.5	5.5	4.5	3.0	5.0	5.0	3.5	3.5	.5	.5		
3	7.0	6.0	5.0	3.0	5.0	4.0	3.5	3.5	.5	.5		
4	7.0	6.0	5.5	5.0	5.0	4.0	3.5	3.5	.5	---		
5	7.0	4.0	5.5	5.0	4.5	4.5	3.5	3.5	.0	---		
6	7.0	6.0	5.5	5.0	4.5	4.5	3.5	3.0	.5	---		
7	7.0	6.0	5.5	5.0	4.5	4.5	3.0	---	1.0	.0		
8	7.0	6.0	5.5	5.5	4.5	4.5	3.0	---	1.0	.0		
9	6.5	6.0	5.5	5.5	4.5	---	3.0	---	1.5	1.0		
10	7.5	6.5	5.5	2.0	4.0	---	3.5	---	1.0	.0		
11	8.0	6.5	5.0	1.0	4.0	---	3.5	---	1.0	.0		
12	7.0	6.0	4.5	.5	3.5	---	3.5	3.5	.5	---		
13	7.0	6.0	5.0	2.5	3.5	---	3.5	3.0	.5	.0		
14	7.0	6.5	4.5	3.0	4.0	1.0	3.5	3.5	1.0	.5		
15	7.5	6.5	5.0	4.5	4.0	.0	3.5	3.0	1.0	.0		
16	7.0	6.5	5.0	5.0	5.0	4.0	3.0	3.0	1.0	.0		
17	7.0	6.0	5.0	5.0	5.0	4.0	3.0	3.0	1.0	.5		
18	6.5	4.0	5.0	5.0	5.0	4.0	3.0	3.0	1.5	1.0		
19	5.5	5.0	5.5	5.0	4.5	4.5	3.0	2.0	1.5	.0		
20	5.5	5.0	5.5	5.5	4.5	4.5	4.0	---	1.5	1.0		
21	6.5	5.5	5.5	5.5	4.5	4.0	4.0	---	---	---		
22	6.5	5.0	5.5	5.5	4.5	4.0	3.5	3.5	---	---		
23	5.5	5.0	5.5	5.5	4.0	4.0	3.5	3.0	---	---		
24	5.5	5.0	5.5	5.5	4.0	4.0	3.5	---	---	---		
25	6.0	5.5	5.5	---	4.5	4.0	.5	.0	---	---		
26	5.5	4.5	5.0	5.0	4.5	4.5	.5	.0	---	---		
27	5.5	5.5	5.5	5.5	5.0	4.5	.0	.0	---	---		
28	6.0	5.0	5.0	3.0	5.0	4.5	.5	.0	---	---		
29	6.0	5.0	5.0	4.5	4.5	4.0	.5	.5	---	---		
30	5.5	4.5	5.0	5.0	4.0	---	.5	.5	---	---		
31	4.5	4.0	---	---	4.0	3.0	.5	.5	---	---		
MONTH	8.0	4.0	5.5	.5	5.0	.0	4.0	.0		.0		

15102350 NORTH ARM CREEK NEAR ANGOON--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1977 TO JULY 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	3.5	2.5	6.0	5.0	9.0	8.0				
2	---	---	3.5	2.5	7.0	5.5	8.5	8.0				
3	---	---	3.5	3.0	7.5	6.0	9.0	---				
4	---	---	4.0	3.0	7.5	6.5	9.5	8.5				
5	---	---	4.0	3.0	7.5	6.0	10.5	9.0				
6	---	---	4.0	---	8.0	6.0	10.5	9.5				
7	---	---	4.0	3.5	8.5	6.0	10.0	9.5				
8	---	---	4.0	---	7.5	7.0	10.0	9.5				
9	---	---	4.0	---	7.5	7.0	11.0	9.5				
10	---	---	5.0	3.5	7.5	7.0	---	---				
11	---	---	5.0	3.5	8.0	---	---	---				
12	---	---	4.5	4.0	8.5	7.0	---	---				
13	2.5	2.5	5.0	---	9.0	7.5	---	---				
14	2.5	2.5	5.0	---	8.0	7.5	---	---				
15	3.0	2.5	5.0	4.0	8.0	---	---	---				
16	3.0	2.0	4.5	4.0	8.0	---	---	---				
17	3.0	2.5	4.5	---	8.0	7.0	---	---				
18	3.0	3.0	4.5	4.0	7.5	7.0	---	---				
19	3.0	3.0	4.5	4.0	7.5	7.0	---	---				
20	3.5	2.0	4.5	---	8.0	---	---	---				
21	3.5	3.0	5.5	3.0	9.5	7.0	---	---				
22	3.5	2.0	6.0	4.0	9.5	7.0	---	---				
23	4.0	2.5	6.0	4.0	10.0	8.0	---	---				
24	4.0	2.0	5.0	4.5	9.0	8.5	---	---				
25	3.5	2.0	5.0	4.5	8.5	8.0	---	---				
26	3.5	2.0	5.0	4.5	9.0	8.0	---	---				
27	3.5	3.0	5.0	4.0	8.5	8.0	---	---				
28	3.5	2.0	5.0	4.0	8.5	8.0	---	---				
29	3.5	3.0	5.5	4.5	9.5	---	---	---				
30	3.5	3.0	6.0	4.5	9.0	8.0	---	---				
31	---	---	6.0	5.5	---	---	---	---				
MONTH	4.0	2.0	6.0	2.5	10.0	5.0						

BEST DOCUMENT AVAILABLE

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE

LOCATION.--Lat 57°39'46", long 135°11'06", in NW¼SE¼ sec.34, T.48 S., R.63 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Chichagof Island, in Tongass National Forest, on left bank 0.6 mi (1.0 km) above Hook Creek, 3.5 mi (5.6 km) upstream from mouth at Kadashan Bay, and 9 mi (14 km) south of Tenakee.

DRAINAGE AREA.--10.2 mi² (26.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1968 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 100 ft (30 m), from topographic map. Prior to Oct. 24, 1969, at site 15 ft (4.6 m) downstream at different datum.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Feb. 23 to Mar. 26 and July 17 to Sept. 8, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--10 years, 63.9 ft³/s (1.810 m³/s), 85.07 in/yr (2,161 mm/yr), 46,300 acre-ft/yr (57.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft³/s (52.4 m³/s) Sept. 15, 1976, gage height, 6.60 ft (2.012 m), from rating curve extended above 950 ft³/s (26.9 m³/s) on basis of slope-area measurement at gage height 5.8 ft (1.77 m) from floodmarks; minimum daily, 3.8 ft³/s (0.11 m³/s) Jan. 20, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s (32.3 m³/s) Oct. 17, gage height, 5.33 ft (1.625 m), only peak discharge above base of 750 ft³/s (21.2 m³/s); minimum daily discharge, 3.8 ft³/s (0.11 m³/s) Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	41	13	6.0	9.0	13	57	202	125	36	10	21
2	22	31	12	5.4	8.4	12	46	226	101	50	9.7	14
3	16	47	11	5.0	8.2	11	38	104	97	50	9.4	12
4	13	165	10	4.6	9.0	14	36	84	80	43	9.3	10
5	11	61	9.7	6.0	18	18	33	67	69	27	8.7	9.0
6	9.4	73	9.0	7.0	52	25	31	61	63	20	8.3	7.5
7	36	44	8.2	9.4	40	35	106	86	63	16	8.8	7.3
8	42	32	7.8	12	30	30	93	81	54	15	11	7.3
9	16	26	7.3	9.0	20	24	117	68	44	13	12	6.9
10	44	23	6.8	8.0	17	20	205	64	39	12	20	6.9
11	181	22	6.6	6.8	15	18	83	80	42	12	14	7.5
12	205	52	6.2	6.3	13	20	80	94	37	14	12	13
13	255	75	6.3	5.7	12	22	61	90	36	15	10	15
14	321	173	6.7	5.2	13	24	48	79	34	18	11	33
15	255	72	7.3	4.9	15	26	40	87	28	40	13	147
16	333	42	9.0	4.7	18	30	35	92	32	56	11	52
17	579	30	8.2	4.3	20	32	35	89	61	20	16	21
18	231	24	7.4	4.1	23	36	44	106	34	16	19	15
19	113	20	6.6	4.0	25	48	59	122	29	14	14	241
20	75	16	6.0	3.8	45	40	75	83	30	13	12	186
21	106	15	5.6	16	33	33	97	71	26	12	13	87
22	232	13	5.3	9.0	28	28	98	91	22	13	12	69
23	87	12	5.1	20	26	29	75	80	19	17	11	33
24	55	12	4.6	140	24	32	67	76	17	14	9.3	23
25	116	11	4.5	40	22	38	77	95	15	17	8.5	18
26	92	10	6.6	30	18	46	125	91	24	15	8.2	15
27	218	10	17	21	16	35	81	119	45	14	8.6	14
28	118	12	16	16	14	36	64	109	27	22	7.9	17
29	98	20	7.0	13	---	31	63	82	20	15	7.6	32
30	70	15	6.6	12	---	24	106	78	24	11	11	22
31	54	---	6.2	11	---	31	---	155	---	10	17	---
TOTAL	4040.4	1199	249.6	450.2	591.6	861	2175	3012	1337	660	353.3	1162.4
MEAN	130	40.0	8.05	14.5	21.1	27.8	72.5	97.2	44.6	21.3	11.4	38.7
MAX	579	173	17	140	52	48	205	226	125	56	20	241
MIN	9.4	10	4.5	3.8	8.2	11	31	61	15	10	7.6	6.9
CFSM	12.7	3.92	.79	1.42	2.07	2.73	7.11	9.53	4.37	2.09	1.12	3.79
IN.	14.73	4.37	.91	1.64	2.16	3.14	7.93	10.98	4.88	2.41	1.29	4.24
AC-FT	8010	2380	495	893	1170	1710	4310	5970	2650	1310	701	2310

CAL YR 1977 TOTAL 20312.9 MEAN 55.7 MAX 579 MIN 4.5 CFSM 5.46 IN 74.07 AC-FT 40290
WTR YR 1978 TOTAL 16091.5 MEAN 44.1 MAX 579 MIN 3.8 CFSM 4.32 IN 58.68 AC-FT 31920

BEST DOCUMENT AVAILABLE

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1967 to September 1978 (discontinued).

INSTRUMENTATION.--Temperature recorder since Nov. 3, 1967.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 14.0°C Aug. 2 and 3, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.0°C Aug. 2, 3; minimum 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.0	5.0	4.0	3.0	1.0	.5	.0	.0			---	---
2	6.0	5.5	3.0	2.5	.5	---	.0	.0			---	---
3	6.0	4.0	3.5	2.5	.5	---	.0	.0			---	---
4	6.0	4.0	3.5	2.5	.5	---	.0	.0			---	---
5	6.0	5.5	3.0	2.0	.0	---	---	---			---	---
6	6.5	4.0	2.5	2.0	.0	.0	---	---			---	---
7	6.0	6.0	2.0	1.5	.0	.0	---	---			---	---
8	6.0	5.0	1.5	1.5	.0	---	---	---			---	---
9	6.5	6.0	1.5	1.0	.0	.0	---	---			---	---
10	7.5	6.0	1.5	1.0	.0	.0	---	---			---	---
11	7.5	6.5	1.5	.5	.0	.0	---	---			---	---
12	6.5	6.0	1.5	1.0	.0	.0	---	---			---	---
13	6.5	6.0	1.5	1.0	.0	.0	---	---			---	---
14	7.0	6.5	1.5	.5	.0	.0	---	---			---	---
15	6.5	5.5	2.0	1.5	.0	.0	---	---			---	---
16	6.5	6.5	2.0	1.5	.0	.0	---	---			---	---
17	6.0	5.5	1.5	1.0	.0	---	---	---			---	---
18	6.0	5.0	1.0	1.0	.0	---	---	---			---	---
19	4.5	4.0	1.0	1.0	.0	---	---	---			---	---
20	4.5	4.5	---	---	.0	.0	---	---			---	---
21	5.5	4.5	---	---	.5	---	---	---			---	---
22	6.0	5.0	---	---	.5	---	---	---			---	---
23	5.0	4.0	---	---	---	---	---	---			---	---
24	5.0	4.5	---	---	.5	---	---	---			---	---
25	5.5	5.0	---	---	.5	.0	---	---			---	---
26	5.5	5.0	.5	---	.5	---	---	---			---	---
27	5.5	5.0	1.5	.5	.5	---	---	---			2.5	1.5
28	5.5	5.5	1.5	.5	.5	---	---	---			2.5	1.5
29	5.5	5.5	.5	.5	.5	---	---	---			2.0	1.0
30	5.5	4.5	1.0	.5	.0	.0	---	---			2.5	1.5
31	4.5	4.0	---	---	.0	.0	---	---			2.5	1.5
MONTH	7.5	4.0	4.0	.5	1.0	.0	.0	.0			2.5	1.0

BEST DOCUMENT AVAILABLE

15106920 KADASHAN RIVER ABOVE HOOK CREEK NEAR TENAKEE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.0	1.5	3.5	3.0	7.5	5.5	9.0	8.0	13.5	11.0	11.5	10.5
2	2.5	1.5	4.0	2.5	9.0	6.0	8.5	8.0	14.0	11.5	11.5	10.0
3	3.0	1.5	4.5	2.5	9.5	6.0	9.0	8.0	14.0	12.0	11.0	9.0
4	3.0	1.5	5.0	3.5	8.0	6.5	10.0	8.5	13.5	12.0	11.0	9.0
5	2.5	1.0	5.0	3.5	9.5	6.5	12.0	9.0	13.0	11.5	11.0	9.0
6	2.5	1.5	5.5	3.0	10.0	6.5	11.0	10.0	13.5	11.0	10.5	10.0
7	2.0	1.5	5.0	4.0	10.0	7.0	11.0	10.0	12.5	11.0	10.0	9.5
8	2.0	1.0	5.0	3.5	9.0	7.5	10.5	10.0	13.5	11.0	11.0	9.0
9	1.5	.5	5.0	3.5	8.5	7.0	11.0	9.0	13.0	12.0	10.0	8.0
10	1.5	.5	6.5	3.5	9.0	7.0	12.0	10.0	12.5	11.5	10.0	9.0
11	2.5	1.0	5.5	4.0	9.5	7.0	12.0	10.0	12.5	11.0	10.5	9.5
12	3.0	1.5	6.0	4.0	9.5	6.5	11.0	10.5	12.5	10.5	10.5	10.0
13	3.0	1.5	6.0	4.0	9.5	6.5	10.5	9.0	12.0	11.0	10.5	10.0
14	3.0	2.0	6.5	3.5	9.0	7.5	10.0	9.5	12.0	11.0	10.0	9.5
15	3.0	1.5	7.0	4.0	8.5	7.5	9.5	9.0	12.0	11.0	10.0	9.0
16	3.5	1.5	5.5	4.5	8.5	7.5	10.0	8.0	12.0	9.5	9.0	7.5
17	4.0	2.0	5.5	4.0	8.5	7.5	10.0	8.5	11.5	11.0	8.0	7.0
18	4.0	2.5	5.5	4.5	8.0	7.0	11.0	8.0	12.5	11.0	7.5	6.5
19	4.0	2.5	6.0	4.5	8.5	7.0	10.5	9.5	12.0	9.5	8.5	7.5
20	4.5	2.0	6.0	4.0	8.5	7.5	11.5	10.0	10.5	9.5	8.0	7.0
21	4.5	2.5	7.0	3.5	10.5	7.5	11.5	10.0	11.5	10.0	7.5	7.0
22	4.5	2.5	7.0	4.0	10.5	7.5	11.0	10.5	11.0	10.0	8.0	7.0
23	4.0	2.0	7.0	4.0	10.0	9.0	11.0	10.5	11.0	8.5	8.0	7.0
24	4.5	2.0	6.5	4.5	10.0	8.5	11.0	10.0	11.5	9.0	8.0	7.0
25	4.0	3.0	6.0	5.0	9.0	8.5	10.5	10.0	12.0	9.5	7.5	7.0
26	4.0	3.0	6.0	4.5	8.5	8.0	11.0	10.0	11.5	9.5	7.0	6.5
27	4.5	2.5	6.0	5.0	8.5	8.0	11.0	10.0	11.5	9.5	7.5	7.0
28	4.5	3.0	6.0	4.5	9.5	8.0	11.0	10.0	12.0	9.5	8.5	7.0
29	4.0	3.0	6.5	5.0	9.5	7.0	11.5	9.0	12.0	11.0	8.5	8.0
30	4.0	3.5	6.0	5.0	9.0	8.0	12.5	9.0	11.5	11.0	8.5	8.0
31	---	---	6.5	5.5	---	---	13.0	10.0	11.5	11.0	---	---
MONTH	4.5	.5	7.0	2.5	10.5	5.5	13.0	8.0	14.0	8.5	11.5	6.5
YEAR	14.0	.0										

BEST DOCUMENT AVAILABLE

15106920 HOOK CREEK ABOVE TRIBUTARY NEAR TENAKEE

LOCATION.--Lat 57°40'39", long 135°07'42", in NW¼SE¼ sec.25, T.48 S., R.61 E., Greater Sitka Borough, Hydrologic Unit 19010000, on Chichagof Island, in Tongass National Forest, on right bank 0.5 mi (0.8 km) upstream from unnamed tributary, 2.5 mi (4.0 km) upstream from mouth, and 9 mi (14 km) south of Tenakee.

DRAINAGE AREA.--4.48 mi² (11.60 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1967 to current year.

REVISED RECORDS.--WRD Alaska 1972: 1971 (M).

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (90 m), from topographic map. Prior to May 11, 1969, water-stage recorder and wooden control at site 130 ft (40 m) downstream at datum 1.0 ft (0.30 m) lower.

REMARKS.--Water-discharge records good except those for Nov. 19 to Mar. 26, which are poor.

AVERAGE DISCHARGE.--11 years, 27.1 ft³/s (0.767 m³/s), 82.15 in/yr (2,087 mm/yr), 19,630 acre-ft/yr (24.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s (36.5 m³/s) Sept. 15, 1976, gage height, 3.79 ft (1.155 m), from rating curve extended above 65 ft³/s (1.84 m³/s) on basis of slope-area measurement at gage height 3.7 ft (1.13 m) from floodmarks; maximum gage height, 5.71 ft (1.740 m) Mar. 11, 1972, backwater from ice; minimum daily discharge, 1.5 ft³/s (0.042 m³/s) Jan. 29 to Feb. 5, Dec. 23 and 24, 1971, Jan. 21-29, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 260 ft³/s (7.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 14	1015	610	17.3	2.84	0.866	Oct. 21	2345	326	9.23	2.24	0.683
Oct. 17	0815	*622	17.6	*2.86	0.872	Sept.19	1115	334	9.46	2.25	0.686

Minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	10	6.2	3.8	5.5	16	139	59	9.3	4.1	12
2	14	17	8.8	6.2	3.5	5.2	15	116	48	14	3.6	6.1
3	11	25	10	6.0	3.2	4.7	13	45	45	13	3.5	4.4
4	9.5	63	9.2	5.6	3.0	4.2	12	37	36	11	3.2	3.7
5	8.5	28	8.0	5.0	3.1	4.0	12	31	34	8.8	3.0	3.5
6	7.5	27	7.0	4.5	3.6	5.0	12	29	32	7.3	3.0	4.6
7	19	20	6.2	4.0	4.5	9.0	31	36	31	6.6	3.2	3.1
8	17	16	5.8	3.7	10	13	27	38	27	6.0	3.9	3.0
9	11	13	5.6	4.0	8.9	10	42	32	22	5.4	5.0	3.0
10	34	12	5.4	4.4	7.9	8.0	71	33	19	4.9	6.0	3.0
11	96	12	5.4	4.2	6.8	6.8	27	43	19	4.6	4.6	3.1
12	118	17	5.1	3.9	5.4	6.3	22	49	18	5.8	3.7	6.1
13	155	43	5.0	3.6	5.0	13	19	45	17	5.1	3.3	6.6
14	242	82	5.0	3.4	4.3	10	16	42	15	6.5	3.3	18
15	124	29	5.0	3.3	4.5	11	14	47	14	12	3.2	49
16	175	17	5.2	3.1	5.8	16	13	46	15	10	3.0	19
17	311	14	6.6	2.9	7.4	26	13	43	18	6.9	5.3	10
18	99	14	6.0	3.0	11	22	18	54	12	5.5	4.3	8.2
19	47	12	5.2	3.3	20	30	24	56	11	4.9	3.4	144
20	33	10	5.2	7.0	14	79	34	38	12	4.6	3.0	79
21	69	9.3	5.0	8.4	10	50	45	35	11	4.3	3.1	53
22	120	8.6	4.8	7.9	50	40	46	44	9.0	5.8	3.0	35
23	41	8.4	4.6	15	28	30	35	41	7.8	6.3	3.5	25
24	27	7.8	4.6	60	17	37	31	37	7.0	5.2	3.0	15
25	60	7.6	4.4	49	11	49	38	42	6.6	6.2	3.0	12
26	62	7.8	5.6	27	8.9	20	69	38	8.1	6.1	2.8	11
27	148	8.4	6.8	14	7.1	11	39	66	9.9	6.8	2.8	9.7
28	81	11	8.0	9.0	6.0	11	29	53	7.8	12	2.6	12
29	54	17	7.3	6.8	---	9.8	30	38	7.0	6.8	2.8	14
30	34	12	6.7	5.4	---	8.8	67	36	9.2	5.3	4.9	13
31	26	---	6.5	4.5	---	11	---	79	---	4.6	8.4	---
TOTAL	2273.5	589.9	194.0	294.3	273.7	566.3	880	1509	587.4	221.6	115.5	585.1
MEAN	73.3	19.7	6.26	9.49	9.78	18.3	29.3	48.7	19.6	7.15	3.73	19.5
MAX	311	82	10	60	50	79	71	139	59	14	8.4	144
MIN	7.5	7.6	4.4	2.9	3.0	4.0	12	29	6.6	4.3	2.6	3.0
CFSM	16.4	4.40	1.40	2.12	2.18	4.09	6.54	10.9	4.38	1.60	.83	4.35
IN.	18.87	4.90	1.61	2.44	2.27	4.70	7.31	12.53	4.88	1.84	.96	4.86
AC-FT	4510	1170	385	584	543	1120	1750	2990	1170	440	229	1160

CAL YR 1977 TOTAL 10038.4 MEAN 27.5 MAX 311 MIN 1.7 CFSM 6.14 IN 83.33 AC-FT 19910
WTR YR 1978 TOTAL 8090.3 MEAN 22.2 MAX 311 MIN 2.6 CFSM 4.96 IN 67.16 AC-FT 16050

15106940 HOOK CREEK ABOVE TRIBUTARY NEAR TENAKEE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1967 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 1, 1967.

REMARKS.--Temperature records fair and complete.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 13.0°C Aug. 16, 1974, Aug. 20, 21, 1977 and Aug. 1-3, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 13.0°C Aug. 1-3; minimum, 0.0°C on many days during winter period.

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT 18...	1330	105	40

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.5	4.5	4.0	3.5	.5	.5	.0	.0	.0	.0	.5	.5
2	4.5	4.0	3.5	3.0	.5	.5	.0	.0	.0	.0	.5	.5
3	4.5	4.5	3.0	2.0	.5	.5	.0	.0	.0	.0	.5	.5
4	5.5	4.5	3.0	2.0	.5	.5	.0	.0	.0	.0	.5	.5
5	5.5	4.5	2.0	1.5	.5	.0	.0	.0	.0	.0	.5	.5
6	5.0	4.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.5	.5
7	5.5	5.0	1.5	1.0	.0	.0	.0	.0	.0	.0	.5	.5
8	5.5	4.5	1.0	1.0	.0	.0	.0	.0	.5	.0	.5	.5
9	5.0	4.5	1.0	.5	.0	.0	.0	.0	.5	.5	.5	.5
10	5.5	5.0	.5	.5	.0	.0	.0	.0	.5	.5	1.0	.5
11	6.0	5.5	.5	.5	.0	.0	.0	.0	.5	.5	1.0	1.0
12	6.0	5.5	.5	.5	.0	.0	.0	.0	.5	.0	1.0	1.0
13	6.0	5.5	.5	.5	.0	.0	.0	.0	.0	.0	1.0	1.0
14	5.5	5.0	1.0	.5	.0	.0	.0	.0	.5	.0	1.0	.5
15	6.0	5.5	1.5	1.0	.0	.0	.0	.0	.5	.5	1.0	1.0
16	5.5	5.5	1.5	1.0	.0	.0	.0	.0	1.0	.5	1.0	1.0
17	5.5	5.5	1.0	1.0	.0	.0	.0	.0	1.0	1.0	1.5	1.0
18	5.5	5.0	1.0	1.0	.0	.0	.0	.0	1.0	.5	1.5	1.0
19	5.0	4.0	1.0	.5	.0	.0	.0	.0	.5	.5	1.0	1.0
20	4.0	4.0	.5	.5	.0	.0	.0	.0	.5	.5	1.0	1.0
21	4.0	4.0	1.0	.5	.0	.0	.0	.0	1.0	.5	1.0	1.0
22	4.5	4.0	1.0	1.0	.0	.0	.0	.0	1.0	1.0	1.5	1.0
23	4.5	4.0	1.0	1.0	.0	.0	.0	.0	1.0	1.0	1.5	1.0
24	4.0	4.0	1.0	1.0	.0	.0	.0	.0	1.0	.5	1.0	.5
25	4.5	4.0	1.0	1.0	.0	.0	.0	.0	.5	.5	1.0	.5
26	4.5	4.5	1.0	.5	.0	.0	.0	.0	1.0	.5	1.0	1.0
27	4.5	4.5	.5	.5	.0	.0	.0	.0	.5	.0	1.0	1.0
28	5.0	4.5	.5	.5	.0	.0	.0	.0	.5	.5	1.0	.5
29	5.0	5.0	.5	.5	.0	.0	.0	.0	---	---	.5	.5
30	5.0	4.5	.5	.5	.0	.0	.0	.0	---	---	1.0	.5
31	4.5	4.0	---	---	.0	.0	.0	.0	---	---	1.0	1.0
MONTH	6.0	4.0	4.0	.5	.5	.0	.0	.0	1.0	.0	1.5	.5

15106940 HOOK CREEK ABOVE TRIBUTARY NEAR TENAKEE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.0	.5	2.0	2.0	5.0	4.0	7.0	6.5	13.0	10.0	10.0	9.0
2	1.0	1.0	3.0	2.0	6.0	4.5	7.0	6.5	13.0	10.5	10.0	9.0
3	1.5	1.0	3.0	2.0	6.5	4.5	7.0	6.5	13.0	10.5	9.5	8.0
4	1.5	1.0	3.0	2.0	5.5	4.5	9.0	7.0	11.5	11.0	9.5	8.0
5	1.5	1.0	3.0	2.0	6.5	5.0	10.0	8.5	11.5	10.5	9.5	8.0
6	1.5	1.0	3.5	2.0	7.0	5.0	9.5	9.0	12.0	9.5	9.5	8.5
7	1.5	1.0	3.0	2.0	7.0	5.0	9.5	8.5	10.5	9.5	9.5	8.5
8	1.0	.5	3.0	2.0	6.5	5.5	9.0	8.5	12.0	9.5	10.0	8.5
9	1.0	.5	3.0	2.0	6.0	5.5	10.5	8.5	11.5	10.5	9.5	7.0
10	1.0	.5	3.5	2.0	7.0	5.0	11.0	9.0	11.0	10.5	10.0	9.0
11	1.5	1.0	3.5	2.0	7.0	5.5	10.5	9.0	11.0	9.5	10.5	9.5
12	1.5	1.0	3.5	2.0	7.0	5.5	9.5	9.0	11.0	9.5	10.5	10.5
13	1.5	1.0	4.0	2.0	8.0	5.5	9.5	8.5	10.5	10.0	10.5	10.0
14	1.5	1.0	4.0	2.0	6.5	6.0	9.0	8.5	10.5	9.5	10.0	9.5
15	1.5	.5	4.0	3.0	6.5	6.0	8.5	8.0	10.5	9.5	9.5	8.5
16	1.5	.5	3.5	3.0	6.5	6.0	8.5	7.0	11.5	9.0	8.5	7.0
17	2.0	1.0	3.5	2.0	6.5	6.0	8.5	7.0	10.5	9.5	8.0	6.5
18	2.0	1.0	3.5	3.0	6.5	6.0	9.0	7.0	11.0	9.5	7.0	6.5
19	2.0	1.5	3.5	3.0	6.5	6.0	9.5	8.0	11.0	8.5	8.0	7.0
20	2.0	1.5	4.0	2.0	7.0	6.5	10.0	9.0	9.5	8.0	8.0	7.0
21	2.0	1.5	4.5	2.0	9.0	6.5	10.0	9.0	9.5	8.5	7.0	7.0
22	2.0	1.5	4.5	3.0	9.5	6.5	10.0	9.5	9.5	9.0	7.0	6.5
23	2.0	1.5	4.5	3.0	8.5	7.0	9.5	9.0	10.5	8.0	7.0	6.5
24	3.0	1.5	4.0	3.0	8.5	7.0	9.5	9.0	10.5	8.0	7.0	6.5
25	3.0	1.5	4.0	3.5	8.0	7.0	9.5	9.0	10.5	9.0	7.0	6.5
26	3.0	2.0	4.0	3.0	7.0	7.0	9.5	8.5	11.0	8.5	6.5	6.0
27	3.0	2.0	4.0	3.5	7.0	6.5	9.5	8.5	10.5	8.5	6.5	5.5
28	3.0	2.0	4.0	3.5	8.0	6.5	9.5	9.0	11.0	8.5	8.0	6.5
29	3.0	2.0	4.5	3.5	8.5	6.0	10.0	8.0	10.5	10.0	8.0	8.0
30	2.0	2.0	4.5	3.5	8.0	7.0	11.0	8.5	10.5	10.0	8.0	7.0
31	---	---	4.5	4.0	---	---	11.5	9.0	10.0	9.5	---	---
MONTH	3.0	.5	4.5	2.0	9.5	4.0	11.5	6.5	13.0	8.0	10.5	5.5
YEAR	13.0	.0										

15106960 HOOK CREEK NEAR TENAKEE

LOCATION.--Lat 57°40'22", long 135°10'40", in SE¼SE¼ sec.27, T.48 S., R.63 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Chichagof Island, in Tongass National Forest, on right bank 1 mi (1.6 km) upstream from confluence with Kadashan River, and 9 mi (14 km) south of Tenakee.

DRAINAGE AREA.--8.00 mi² (20.72 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1966 to current year. Published as "above Kadashan River" prior to September 1969.

REVISED RECORDS.--WRD Alaska 1972: 1971 (M).

GAGE.--Water-stage recorder and timber-concrete control. Altitude of gage is 180 ft (55 m), from topographic map.

REMARKS.--Water-discharge records good, except those for periods of no gage-height record, Oct. 7-17, and Jan. 5 to Mar. 26, which are poor.

AVERAGE DISCHARGE.--11 years, 43.3 ft³/s (1.226 m³/s), 73.50 in/yr (1,867 mm/yr), 31,370 acre-ft/yr (38.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Oct. 5, 1972, gage height, 4.78 ft (1.457 m), from rating curve extended above 240 ft³/s (6.8 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 5.29 ft (1.612 m) Mar. 13, 1972, backwater from ice; minimum daily discharge, 2.5 ft³/s (0.071 m³/s) Jan. 20-29, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 14	Unknown	Unknown		Unknown		Oct. 27	0130	300	8.50	2.82	0.860
Oct. 17	Unknown	*Unknown		Unknown		Sept.19	1130	342	9.69	2.94	0.896
Oct. 21	1830	345	9.77	2.95	0.899						

Minimum daily discharge, 4.8 ft³/s (0.136 m³/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	37	18	9.0	6.8	10	30	176	67	16	9.1	14
2	27	32	16	8.4	6.0	9.0	29	161	62	19	8.0	8.9
3	23	54	14	7.6	5.6	8.5	25	73	51	20	7.9	7.5
4	20	89	13	7.0	5.2	7.8	24	60	48	17	7.5	6.6
5	18	48	12	6.6	5.4	7.4	24	51	46	15	7.4	6.2
6	17	56	11	6.0	6.4	10	24	47	44	13	7.1	5.9
7	22	38	11	5.8	8.0	17	46	58	38	12	6.8	5.9
8	30	31	10	5.4	30	23	50	56	33	12	7.8	5.9
9	24	27	10	5.0	20	16	87	50	28	11	8.3	5.6
10	23	25	9.6	4.8	15	14	132	51	26	10	11	5.6
11	45	25	9.3	5.2	12	12	60	62	26	10	8.7	5.6
12	80	40	9.0	7.8	10	12	48	70	25	10	8.0	8.6
13	170	81	8.8	7.0	9.0	20	43	65	23	11	7.5	10
14	420	146	8.6	6.4	8.0	18	36	61	22	11	7.2	20
15	270	54	8.6	5.8	8.0	30	31	67	20	18	7.1	56
16	230	37	9.0	5.4	10	52	29	64	20	17	6.3	26
17	540	29	12	5.2	13	46	28	61	25	13	8.3	15
18	210	24	9.9	5.4	20	40	31	74	20	11	8.4	12
19	74	21	9.2	6.0	36	54	40	77	18	10	7.4	180
20	58	19	9.0	7.2	24	130	56	54	18	9.7	6.3	110
21	128	17	8.8	13	19	80	73	51	17	9.2	6.3	71
22	148	15	8.7	11	90	54	71	61	16	10	6.3	51
23	66	15	8.3	10	45	50	56	57	15	12	6.2	30
24	57	14	8.3	35	30	70	52	52	14	11	5.9	24
25	82	14	8.3	110	20	80	58	57	13	11	5.7	20
26	120	14	9.1	45	16	40	99	53	13	11	5.6	18
27	157	15	12	25	13	28	58	84	16	11	5.6	17
28	116	17	15	17	11	22	41	70	14	18	5.2	18
29	74	25	13	12	---	21	48	53	13	12	5.2	21
30	53	20	12	10	---	20	96	101	15	11	6.9	20
31	45	---	10	8.0	---	22	---	77	---	9.6	10	---
TOTAL	3382	1079	331.5	423.0	502.4	1023.7	1525	2154	806	391.5	225.0	805.3
MEAN	109	36.0	10.7	13.6	17.9	33.0	50.8	69.5	26.9	12.6	7.26	26.8
MAX	540	146	18	110	90	130	132	176	67	20	11	180
MIN	17	14	8.3	4.8	5.2	7.4	24	47	13	9.2	5.2	5.6
CFSM	13.6	4.50	1.34	1.70	2.24	4.13	6.35	8.69	3.36	1.58	.91	3.35
IN.	15.72	5.02	1.54	1.97	2.34	4.76	7.09	10.01	3.75	1.82	1.05	3.74
AC-FT	6710	2140	658	839	997	2030	3020	4270	1600	777	446	1600

CAL YR 1977 TOTAL 14603.4 MEAN 40.0 MAX 540 MIN 5.5 CFSM 5.00 IN 67.90 AC-FT 28970
WTR YR 1978 TOTAL 12648.4 MEAN 34.7 MAX 540 MIN 4.8 CFSM 4.34 IN 58.81 AC-FT 25090

15106960 HOOK CREEK NEAR TENAKEE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 7, 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 15.0°C Aug. 16, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 13.5°C Aug. 8; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.0	4.5	4.0	3.0	1.0	.0	.0	.0	.0	.0	.0	.0
2	5.0	4.0	3.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0
3	5.5	4.5	3.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0
4	6.5	4.5	3.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0
5	6.0	5.0	3.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0
6	6.0	4.5	3.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
7	6.5	5.5	2.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
8	6.0	4.5	2.0	1.5	.0	.0	.0	.0	.5	.0	.0	.0
9	6.0	4.5	1.5	.5	.0	.0	.0	.0	1.5	.5	.5	.0
10	6.5	5.5	1.5	1.0	.0	.0	.0	.0	1.5	1.0	1.0	.0
11	7.5	6.5	1.5	.5	.0	.0	.0	.0	1.5	.5	1.5	.0
12	7.5	6.0	2.0	1.0	.0	.0	.0	.0	.5	.0	1.0	.0
13	6.5	6.0	2.0	.5	.0	.0	.0	.0	.0	.0	1.5	.0
14	6.5	5.5	2.0	1.5	.0	.0	.0	.0	1.0	---	1.5	.0
15	7.0	6.5	2.5	2.0	.0	.0	.0	.0	1.5	---	1.5	.0
16	6.5	6.0	2.5	1.5	.0	.0	.0	.0	1.5	.5	1.5	.0
17	6.5	6.5	1.5	.0	.5	.0	.0	.0	1.5	1.5	1.5	.0
18	6.5	5.0	.0	.0	.5	.0	.5	.0	1.5	.5	1.5	.5
19	5.0	4.0	.0	.0	.5	.0	.5	.0	1.0	.0	1.5	.0
20	5.0	4.5	.0	.0	.5	.5	.5	.0	1.5	.5	1.0	.0
21	5.5	5.0	.0	.0	.5	.0	.0	.0	1.5	.5	1.5	.0
22	6.0	5.0	.0	.0	.0	.0	.5	.0	1.5	1.5	2.0	.0
23	5.0	4.5	.0	.0	.0	.0	.5	.0	2.0	.5	1.5	.0
24	5.0	4.5	.0	.0	.0	.0	.0	.0	1.5	.5	1.5	.0
25	5.5	5.0	.0	.0	.5	.0	.0	.0	1.0	.0	1.5	.0
26	5.5	5.0	1.0	.0	.5	.0	.5	.0	1.5	.0	2.0	.0
27	5.5	5.0	1.0	1.0	.5	.0	.0	.0	.0	.0	1.5	1.0
28	6.0	5.5	1.0	.5	.0	.0	.0	.0	.0	.0	2.0	.5
29	6.0	5.5	.5	.0	.0	.0	.5	.0	---	---	1.5	.0
30	5.5	4.5	1.0	.5	.0	.0	.5	.0	---	---	2.0	.0
31	4.5	4.0	---	---	.0	.0	.0	.0	---	---	1.5	1.0
MONTH	7.5	4.0	4.0	.0	1.0	.0	.5	.0	2.0	.0	2.0	.0

BEST DOCUMENT AVAILABLE

15106960 HOOK CREEK NEAR TENAKEE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.5	.5	2.0	1.5	6.0	4.0	7.5	6.5	13.0	9.5	10.5	9.0
2	2.0	.5	2.5	1.0	7.5	4.5	7.0	6.5	13.0	10.0	10.5	8.5
3	2.0	.5	2.5	1.0	8.0	4.5	7.5	6.5	13.0	10.5	9.5	7.5
4	2.0	.0	3.5	1.5	7.0	4.5	9.0	7.0	12.5	10.5	9.5	7.5
5	1.5	.0	3.5	1.5	9.0	5.0	10.5	8.0	13.0	10.0	9.5	7.5
6	1.5	.0	4.0	1.5	9.5	4.5	10.5	8.5	13.0	9.5	9.5	8.5
7	1.5	.0	3.5	2.0	9.5	5.5	10.5	8.5	11.0	9.5	9.5	8.0
8	1.5	.0	3.5	1.5	7.5	6.0	9.0	8.5	13.5	10.0	9.5	8.0
9	1.0	.0	3.5	1.5	7.5	6.0	11.0	8.0	11.5	11.0	8.5	6.0
10	1.0	.0	5.0	1.5	8.0	5.5	12.0	8.5	11.0	10.0	9.0	7.5
11	1.5	.5	4.0	1.5	8.0	6.0	11.5	9.0	12.0	9.5	9.5	8.0
12	2.0	.5	4.5	2.0	9.0	5.5	10.5	9.0	12.5	9.0	9.5	9.5
13	2.0	.0	4.5	2.0	10.0	6.0	9.5	8.0	10.5	10.0	10.0	8.5
14	2.0	.5	5.0	1.5	7.5	6.5	9.0	8.0	11.0	9.5	9.5	8.5
15	2.0	.0	4.5	2.0	7.5	6.0	8.5	7.5	11.0	9.5	8.5	7.5
16	2.0	.0	3.5	2.0	7.5	6.0	9.0	7.0	11.5	8.0	8.0	6.0
17	3.0	.5	4.0	2.0	7.5	6.0	9.0	7.0	10.5	9.5	7.0	5.5
18	2.5	.5	4.0	2.5	7.0	5.5	10.5	7.5	12.0	9.5	6.5	4.5
19	2.5	.5	4.0	2.5	7.5	6.0	9.5	8.0	11.0	8.0	8.0	6.5
20	3.0	.5	4.5	2.0	7.5	6.5	11.5	9.0	9.0	7.5	7.0	6.5
21	3.0	1.0	5.5	1.5	10.5	6.0	11.0	9.0	10.5	8.5	7.0	6.0
22	3.0	1.0	6.0	2.0	10.5	6.0	10.0	9.5	10.0	8.5	7.0	6.0
23	2.5	.5	6.0	2.0	9.0	7.5	10.0	9.0	10.5	7.5	7.0	6.0
24	3.5	1.0	5.0	3.0	9.0	7.5	9.5	8.5	10.0	7.5	7.0	6.0
25	2.0	1.0	4.5	3.5	8.0	7.0	9.5	8.5	10.5	8.0	7.0	5.5
26	2.5	1.0	4.5	3.0	7.5	7.0	10.5	8.0	10.5	8.0	5.5	4.5
27	3.0	1.0	4.5	3.5	7.5	7.0	10.0	8.5	10.5	8.0	7.0	5.0
28	3.0	1.0	4.5	3.0	8.5	7.0	10.5	8.5	10.5	8.0	8.0	7.0
29	3.0	1.0	5.0	3.5	9.5	6.0	11.5	7.5	11.0	9.5	7.5	7.5
30	2.5	1.5	4.5	3.5	7.5	7.0	12.0	8.0	10.5	10.0	7.5	7.0
31	---	---	5.0	4.0	---	---	12.5	8.5	10.5	9.5	---	---
MONTH	3.5	.0	6.0	1.0	10.5	4.0	12.5	6.5	13.5	7.5	10.5	4.5
YEAR	13.5	.0										

15106980 TONALITE CREEK NEAR TENAKEE

LOCATION.--Lat 57°40'42", long 135°13'17", Greater Sitka Borough, Hydrologic Unit 19060000, on Chichagof Island, in Tongass National Forest, on right bank 2 mi (3.2 km) upstream from mouth at Kadashan River, and 9 mi (14 km) south of Tenakee.

DRAINAGE AREA.--14.5 mi^2 (37.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map. Prior to Mar. 23, 1970, at site 40 ft (12 m) upstream on left bank at datum 0.30 ft (0.091 m) higher.

REMARKS.--Water-discharge records good except those for Nov. 19 to Mar. 14, which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--10 years, 94.2 ft^3/s (2.668 m^3/s), 88.22 in/yr (2,241 mm/yr), 68,250 acre-ft/yr (84.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft^3/s (94.6 m^3/s) Oct. 5, 1972, gage height, 7.83 ft (2.387 m) in gage well, 7.96 ft (2.426 m) from floodmarks, from rating curve extended above 210 ft^3/s (5.9 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Jan. 15-19, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 14	1120	1,340	37.9	5.16	1.573	Sept.19	2015	1,200	34.0	4.91	1.497
Oct. 17	0930	*1,820	51.5	*5.94	1.811						

Minimum daily discharge, 7.6 ft^3/s (0.22 m^3/s) Dec. 25 and Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	65	32	20	18	23	72	296	127	70	19	34
2	42	53	27	15	16	21	61	395	107	70	19	22
3	34	55	24	13	14	20	53	151	105	68	18	17
4	30	189	21	12	13	19	51	124	93	60	17	16
5	28	89	17	11	12	17	47	95	79	48	17	14
6	25	98	15	11	13	20	47	80	75	41	17	14
7	55	68	14	10	19	38	110	104	72	37	16	14
8	83	52	13	11	50	54	139	107	66	35	19	14
9	40	44	12	14	70	37	195	93	57	32	21	13
10	52	40	11	18	35	31	360	87	52	30	32	12
11	241	38	11	16	27	27	124	107	52	28	31	13
12	384	52	10	11	23	26	99	124	51	28	25	14
13	614	93	9.6	10	21	28	80	120	47	29	22	17
14	803	288	9.5	9.4	19	32	67	107	44	28	23	28
15	531	107	9.4	8.6	17	36	58	117	42	41	26	186
16	576	60	9.6	8.2	18	48	54	117	43	42	23	84
17	1070	44	10	7.8	23	51	51	115	43	33	35	43
18	401	37	12	7.6	38	46	58	113	44	28	40	33
19	166	32	13	7.8	60	67	75	138	44	26	30	293
20	104	30	10	8.2	82	99	93	105	45	25	25	320
21	138	27	9.4	40	44	79	134	87	46	23	24	132
22	449	24	8.6	30	43	56	138	109	42	24	23	101
23	151	21	8.0	35	55	44	107	105	38	31	22	60
24	87	20	7.8	60	45	55	89	96	36	28	19	46
25	145	19	7.6	210	37	67	104	101	34	30	16	39
26	112	19	8.0	70	33	60	164	109	37	30	16	34
27	306	19	9.6	54	30	49	120	158	58	27	15	33
28	139	20	19	42	27	48	90	132	49	34	14	35
29	117	30	28	36	---	43	87	93	41	26	14	55
30	89	40	18	30	---	39	134	86	44	23	17	43
31	83	---	19	21	---	45	---	132	---	21	28	---
TOTAL	7155	1773	433.1	857.6	902	1325	3061	3903	1713	1096	683	1779
MEAN	231	59.1	14.0	27.7	32.2	42.7	102	126	57.1	35.4	22.0	59.3
MAX	1070	288	32	210	82	99	360	395	127	70	40	320
MIN	25	19	7.6	7.6	12	17	47	80	34	21	14	12
CFSM	15.9	4.08	.97	1.91	2.22	2.95	7.03	8.69	3.94	2.44	1.52	4.09
IN.	18.35	4.55	1.11	2.20	2.31	3.40	7.85	10.01	4.39	2.81	1.75	4.56
AC-FT	14190	3520	859	1700	1790	2630	6070	7740	3400	2170	1350	3530

CAL YR 1977 TOTAL 33813.3 MEAN 92.6 MAX 1070 MIN 7.6 CFSM 6.39 IN 86.74 AC-FT 67070
WTR YR 1978 TOTAL 24680.7 MEAN 67.6 MAX 1070 MIN 7.6 CFSM 4.66 IN 63.31 AC-FT 48950

15106980 TONALITE CREEK NEAR TENAKEE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1968 to current year.

INSTRUMENTATION.--Temperature recorder since June 27, 1968.

REMARKS.--Interruptions in the record that occurred during Dec. to Apr. were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 14.0°C Aug. 12, 1968; minimum, 0.0°C on many days during the winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 13.5°C Aug. 1-4, 8 and 9; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	4.0	4.0	1.0	.0	.0	---			---	---
2	---	---	3.0	2.0	.5	.0	.0	.0			---	---
3	---	---	3.0	2.0	.0	---	.0	.0			---	---
4	---	---	3.0	2.0	---	---	.0	.0			---	---
5	---	---	2.5	2.5	---	---	.0	.0			---	---
6	---	---	2.5	1.5	---	---	.0	.0			---	---
7	---	---	2.0	1.0	.0	---	.0	.0			---	---
8	---	---	1.5	1.0	.0	.0	.0	.0			---	---
9	---	---	1.5	1.0	.0	.0	.0	---			---	---
10	---	---	1.0	.0	.0	---	---	---			---	---
11	---	---	1.5	.5	---	---	---	---			---	---
12	---	---	1.5	.0	---	---	---	---			---	---
13	---	---	1.0	.5	.0	---	---	---			---	---
14	---	---	1.5	.0	.0	.0	---	---			---	---
15	---	---	2.0	1.5	.0	.0	---	---			---	---
16	---	---	2.0	1.0	.0	.0	---	---			---	---
17	---	---	1.5	.0	.0	.0	---	---			---	---
18	6.0	5.0	1.0	.0	.0	.0	---	---			---	---
19	5.0	4.0	.5	.0	.0	.0	---	---			---	---
20	4.5	4.5	.0	.0	.0	.0	---	---			---	---
21	5.0	4.5	.0	.0	.0	.0	---	---			---	---
22	6.0	5.0	.0	.0	.0	---	---	---			---	---
23	5.0	4.0	.0	.0	---	---	---	---			---	---
24	5.0	4.0	.0	.0	.0	---	---	---			---	---
25	5.0	4.0	.0	.0	.0	---	---	---			---	---
26	5.0	5.0	.0	.0	.0	.0	---	---			---	---
27	5.5	4.0	.0	.0	.0	.0	---	---			2.5	1.5
28	5.5	5.5	.5	.0	.0	.0	---	---			2.5	1.0
29	5.5	5.5	.5	.0	.0	---	---	---			2.5	.0
30	5.5	4.0	.5	.0	---	---	---	---			2.5	1.0
31	4.5	4.0	---	---	---	---	---	---			2.0	1.0
MONTH	6.0	4.0	4.0	.0	1.0	.0		.0				.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.0	1.0	3.5	2.0	7.0	5.0	8.5	.0	13.5	11.0	11.0	10.5
2	2.5	.0	3.5	2.0	9.0	5.0	8.5	.0	13.5	11.5	11.5	10.5
3	3.0	.0	3.5	2.0	9.5	.0	8.5	6.0	13.5	12.0	11.5	.0
4	3.0	.0	5.0	.0	8.0	.0	9.5	8.0	13.5	12.0	10.5	9.0
5	3.0	.0	4.5	.0	10.0	.0	10.5	9.0	13.0	11.5	11.0	.0
6	2.5	1.0	5.0	2.0	10.0	.0	11.0	9.5	13.0	10.0	11.0	10.0
7	2.0	.0	5.0	.0	10.5	.0	10.5	9.5	13.0	11.5	10.5	.0
8	2.0	.0	4.5	.0	9.0	.0	10.5	.0	13.5	11.0	10.5	9.5
9	1.5	.0	4.5	.0	8.0	6.0	11.5	.0	13.5	12.0	10.0	9.5
10	1.5	.5	6.0	.0	9.5	6.0	12.0	.0	12.0	10.0	10.0	9.0
11	2.0	.0	5.0	.0	9.0	.0	12.0	10.0	12.5	11.0	10.5	9.5
12	2.5	.0	6.5	.0	10.0	.0	11.5	10.0	12.5	11.0	10.5	10.0
13	3.0	1.0	6.0	.0	11.0	.0	11.0	10.0	12.5	11.0	10.5	.0
14	3.0	1.0	6.5	.0	9.5	8.0	11.0	.0	12.0	11.0	10.0	.0
15	3.0	1.0	6.5	.0	9.0	.0	9.5	9.0	11.5	11.0	9.5	9.0
16	3.0	1.0	5.0	4.0	9.0	8.0	10.0	8.0	12.0	10.0	9.0	8.0
17	3.5	1.0	5.0	.0	8.5	.0	10.0	.0	12.0	11.0	9.0	2.0
18	3.5	.0	5.0	.0	8.0	6.0	11.0	9.0	12.0	10.0	8.0	7.0
19	3.5	.0	6.0	.0	9.0	7.5	11.0	10.0	12.0	.0	8.0	.0
20	4.0	.0	6.0	.0	9.0	2.0	11.5	10.5	11.5	.0	8.0	.0
21	4.0	2.0	7.5	.0	11.0	.0	12.0	10.5	11.0	10.0	7.5	7.0
22	4.0	2.0	7.5	.0	11.0	8.0	11.5	10.0	11.0	10.0	7.5	7.5
23	3.5	2.0	7.0	.0	10.5	9.0	11.0	10.0	11.0	9.0	7.5	7.0
24	4.5	.0	6.0	4.0	10.0	9.0	11.0	10.0	11.0	9.0	7.5	7.5
25	3.5	2.0	5.5	4.0	10.0	8.0	10.5	10.0	11.5	10.0	7.5	7.5
26	4.0	2.0	5.5	4.0	9.0	8.5	11.0	10.0	11.5	10.0	7.5	7.0
27	4.0	.0	5.5	4.0	8.5	8.0	11.0	10.0	11.5	10.0	7.5	7.0
28	4.0	.0	5.5	4.0	9.5	.0	11.0	10.0	12.0	10.0	8.0	7.5
29	3.5	2.0	6.5	4.0	10.0	7.5	12.0	9.5	12.0	11.5	8.0	8.0
30	3.5	2.0	5.5	4.0	9.5	8.0	12.5	10.0	12.0	11.5	8.0	8.0
31	---	---	6.0	5.0	---	---	13.0	10.5	11.5	10.0	---	---
MONTH	4.5	.0	7.5	.0	11.0	.0	13.0	.0	13.5	.0	11.5	.0
YEAR	13.5	.0										

15107000 KADASHAN RIVER NEAR TENAKEE

LOCATION.--Lat 57°41'43", long 135°12'59", in SE¼NW¼ sec. 21, T.48 S., R.63 E., Greater Sitka Borough, Hydrologic Unit 19060000, on Chichagof Island, in Tongass National Forest, on right bank 700 ft (213 m) downstream from mouth of Tonalite Creek, 0.5 mi (0.8 km) upstream from mouth at Kadashan Bay in Tenakee Inlet, and 7 mi (11 km) south of Tenakee.

DRAINAGE AREA.--37.7 mi^2 (97.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3 ft (0.9 m), from topographic map.

REMARKS.--Water-discharge records good. Most high tides cause backwater at the gage and are shown on the stage record.

AVERAGE DISCHARGE.--14 years, 230 ft^3/s (6.51 m^3/s), 82.85 in/yr (2,104 mm/yr), 166,600 acre-/yr (205 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,070 ft^3/s (172 m^3/s) Oct. 5, 1972, gage height, 10.41 ft (3.173 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s); minimum daily, 14 ft^3/s (0.40 m^3/s) Jan. 29 to Feb. 1, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft^3/s (73.6 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 14	1300	3,600	102	8.51	2.594	Oct. 17	1220	*5,010	142	*9.56	2.914

Minimum daily discharge, 19 ft^3/s (0.54 m^3/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	203	68	42	42	61	195	801	328	121	36	68
2	102	162	60	38	37	56	188	998	268	130	35	50
3	78	174	54	35	34	50	140	387	254	134	34	41
4	64	587	48	33	31	47	130	302	216	115	33	35
5	55	260	43	31	32	45	121	240	190	91	31	32
6	49	292	39	29	42	56	122	210	176	74	29	29
7	99	208	36	28	82	86	324	271	171	67	30	27
8	199	160	34	32	180	135	383	271	153	62	38	27
9	77	132	31	43	140	90	533	226	126	58	39	24
10	94	122	29	48	100	76	1000	213	115	54	65	21
11	743	121	27	34	74	71	338	268	115	50	51	21
12	922	183	26	31	56	66	284	308	110	55	42	30
13	1400	290	25	27	52	68	216	293	104	55	37	40
14	1890	732	24	25	47	70	169	265	99	54	42	67
15	1360	296	23	22	44	77	140	280	86	87	43	377
16	1560	169	24	21	60	106	126	284	86	89	39	173
17	2820	130	28	20	78	115	121	277	162	62	56	84
18	1050	111	33	20	140	115	143	315	106	52	62	62
19	498	100	29	21	210	203	183	358	94	48	49	878
20	338	80	26	23	140	265	232	254	96	45	43	694
21	406	70	23	76	102	200	318	218	92	43	44	297
22	1180	60	22	72	530	132	325	268	83	46	41	227
23	412	54	20	140	290	104	254	248	75	58	37	121
24	271	50	19	370	190	151	218	232	68	49	33	92
25	415	48	20	460	140	181	257	260	65	58	30	80
26	346	48	22	320	100	156	420	257	77	57	30	67
27	915	49	28	130	80	113	290	452	117	52	30	62
28	447	56	43	110	72	126	221	321	92	71	29	68
29	362	94	62	75	---	111	218	229	78	50	28	106
30	274	78	54	58	---	101	361	210	81	42	42	89
31	245	---	48	48	---	115	---	390	---	40	57	---
TOTAL	18835	5119	1068	2462	3125	3348	7970	9906	3883	2069	1235	3989
MEAN	608	171	34.5	79.4	112	108	266	320	129	66.7	39.8	133
MAX	2820	732	68	460	530	265	1000	998	328	134	65	878
MIN	49	48	19	20	31	45	121	210	65	40	28	21
CFSM	16.1	4.54	.92	2.11	2.97	2.87	7.06	8.49	3.42	1.77	1.06	3.53
IN.	18.58	5.05	1.05	2.43	3.08	3.30	7.86	9.77	3.83	2.04	1.22	3.94
AC-FT	37360	10150	2120	4880	6200	6640	15810	19650	7700	4100	2450	7910

CAL YR 1977 TOTAL 82251 MEAN 225 MAX 2820 MIN 19 CFSM 5.97 IN 81.16 AC-FT 163100
WTR YR 1978 TOTAL 63089 MEAN 173 MAX 2820 MIN 19 CFSM 4.59 IN 62.17 AC-FT 125000

15107000 KADASHAN RIVER NEAR TENAKEE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1966 to current year.

INSTRUMENTATION.--Temperature recorder since June 19, 1966.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument, Dec. 12 to Mar. 11.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 17°C Aug. 7, 1968; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum recorded, 11.0°C Aug. 17 to Sept. 1; minimum, 0.0°C Nov. 12 to Dec. 11.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.0	6.0	3.5	3.5	.0	.0					---	---
2	6.0	6.0	3.5	3.5	.0	.0					---	---
3	6.0	6.0	3.5	3.0	.0	.0					---	---
4	6.0	6.0	3.0	3.0	.0	.0					---	---
5	6.0	5.5	3.0	2.0	.0	.0					---	---
6	5.5	5.5	2.0	2.0	.0	.0					---	---
7	5.5	5.0	2.0	2.0	.0	.0					---	---
8	5.0	5.0	2.0	1.5	.0	.0					---	---
9	5.0	4.5	1.5	1.5	.0	.0					---	---
10	4.5	4.5	1.5	1.0	.0	.0					---	---
11	4.5	4.5	1.0	.5	.0	.0					---	---
12	4.5	4.5	.5	.0	---	---					3.0	3.0
13	4.5	4.5	.0	.0	---	---					3.0	3.0
14	4.5	4.5	.0	.0	---	---					3.0	3.0
15	4.5	4.5	.0	.0	---	---					3.0	3.0
16	4.5	4.5	.0	.0	---	---					3.0	3.0
17	4.5	4.5	.0	.0	---	---					3.0	3.0
18	4.5	4.0	.0	.0	---	---					3.0	3.0
19	4.0	4.0	.0	.0	---	---					3.0	3.0
20	4.0	4.0	.0	.0	---	---					3.0	3.0
21	4.0	3.5	.0	.0	---	---					3.0	3.0
22	3.5	3.5	.0	.0	---	---					3.0	3.0
23	3.5	3.5	.0	.0	---	---					3.0	3.0
24	3.5	3.5	.0	.0	---	---					3.0	3.0
25	3.5	3.5	.0	.0	---	---					3.0	3.0
26	3.5	3.5	.0	.0	---	---					3.0	3.0
27	3.5	3.0	.0	.0	---	---					3.0	3.0
28	3.5	3.0	.0	.0	---	---					3.0	3.0
29	3.5	3.5	.0	.0	---	---					3.5	3.0
30	3.5	3.5	.0	.0	---	---					3.0	3.0
31	3.5	3.5	---	---	---	---					3.0	3.0
MONTH	6.0	3.0	3.5	.0	.0	.0					3.5	

15107000 KADASHAN RIVER NEAR TENAKEE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.0	3.0	5.5	5.5	6.5	6.5	9.5	9.5	10.0	10.0	11.0	10.5
2	3.0	3.0	5.5	5.5	6.5	6.5	9.5	9.5	10.5	10.0	10.5	10.5
3	3.0	2.5	5.5	5.5	7.0	6.5	9.5	9.5	10.5	10.5	10.5	10.5
4	3.0	3.0	5.5	5.0	7.0	7.0	9.5	9.5	10.5	10.5	10.5	10.5
5	3.0	3.0	5.5	5.5	7.5	7.0	9.5	9.5	10.5	10.5	10.5	10.5
6	3.0	3.0	5.5	5.5	7.5	7.5	9.5	9.5	10.5	10.5	10.5	10.5
7	3.0	2.5	5.5	5.5	7.5	7.5	9.5	9.5	10.5	10.5	10.5	10.5
8	3.0	3.0	5.5	5.5	8.0	7.5	9.5	9.5	10.5	10.5	10.5	10.5
9	3.0	3.0	5.5	5.5	8.0	8.0	9.5	9.5	10.5	10.0	10.5	10.5
10	3.0	2.5	5.5	5.5	8.0	8.0	9.5	9.0	10.0	10.0	10.5	10.5
11	2.5	2.0	5.5	5.5	8.0	8.0	9.0	9.0	10.0	10.0	10.5	10.5*
12	2.5	2.0	6.0	5.5	8.0	8.0	9.5	9.0	10.0	10.0	10.5	10.5
13	2.5	2.5	6.0	6.0	8.0	8.0	9.0	9.0	10.0	10.0	10.5	10.5
14	2.5	2.5	6.0	6.0	8.0	8.0	9.0	9.0	10.0	10.0	10.5	10.5
15	2.5	2.5	6.0	6.0	8.0	8.0	9.0	9.0	10.0	10.0	10.5	10.5
16	2.5	2.5	6.0	6.0	8.0	8.0	9.5	9.0	10.5	10.0	10.5	10.5
17	2.5	2.5	6.0	6.0	8.0	8.0	9.5	9.5	11.0	10.5	10.5	10.0
18	3.0	2.5	6.0	6.0	8.5	8.0	9.5	9.5	11.0	11.0	10.0	9.5
19	3.0	3.0	6.5	6.0	8.5	8.5	10.0	9.5	11.0	11.0	9.5	9.5
20	3.0	3.0	6.5	6.5	8.5	8.5	10.5	10.0	11.0	11.0	9.5	9.5
21	3.5	3.0	6.5	6.5	9.0	8.5	10.5	10.0	11.0	11.0	9.5	9.5
22	3.5	3.5	6.5	6.5	9.0	9.0	10.0	10.0	11.0	11.0	9.5	9.0
23	3.5	3.5	6.5	6.5	9.0	9.0	10.0	10.0	11.0	11.0	9.0	9.0
24	4.0	3.5	6.5	6.5	9.5	9.0	10.0	10.0	11.0	11.0	9.0	8.5
25	4.0	4.0	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
26	4.0	4.0	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
27	4.5	4.0	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
28	5.0	4.5	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
29	5.0	5.0	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
30	5.5	5.0	6.5	6.5	9.5	9.5	10.0	10.0	11.0	11.0	8.5	8.5
31	---	---	6.5	6.5	---	---	10.0	10.0	11.0	11.0	---	---
MONTH	5.5	2.0	6.5	5.0	9.5	6.5	10.5	9.0	11.0	10.0	11.0	8.5
YEAR	11.0	.0										

BEST DOCUMENT AVAILABLE

15108000 PAVLOF RIVER NEAR TENAKEE

LOCATION.--Lat 57°50'30", long 135°02'09", Hydrologic Unit 19060000, on Chichagof Island, in Tongass National Forest, on left bank 250 ft (76 m) upstream from falls at outlet of Pavlof Lake, 0.1 mi (0.2 km) upstream from mouth at Pavlof Harbor, and 8 mi (13 km) northeast of Tenakee.

DRAINAGE AREA.--24.3 mi² (62.9 km²).

PERIOD OF RECORD.--June 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m), from topographic map.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 161 ft³/s (4.56 m³/s), 89.97 in/yr (2,285 mm/yr), 116,600 acre-ft/yr (144 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,970 ft³/s (84.1 m³/s) Jan. 4, 1963, gage height, 8.37 ft (2.551 m), from rating curve extended above 1,200 ft³/s (34 m³/s; minimum, 6.8 ft³/s (0.19 m³/s) Jan. 16-18, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 14	2230	1,890	63.2	7.14	2.176	Oct. 17	1700	*2,340	66.3	*7.56	2.304

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Dec. 23-25 and Jan. 16-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	127	70	27	28	39	127	496	396	121	41	66
2	110	107	51	25	24	35	136	699	269	159	40	45
3	87	118	39	23	22	33	99	325	253	242	39	33
4	72	458	32	21	20	30	89	257	245	161	36	28
5	64	233	28	20	20	28	84	203	199	120	33	24
6	55	178	25	19	25	40	82	171	178	103	30	22
7	64	152	23	18	45	70	185	196	181	107	30	20
8	107	118	21	20	120	90	265	218	175	95	53	18
9	70	84	20	24	85	60	265	196	145	76	56	16
10	66	75	19	32	60	50	673	178	121	69	102	14
11	348	75	18	23	45	46	261	214	113	63	78	14
12	673	110	17	19	38	44	210	229	110	71	57	15
13	1260	321	16	17	33	80	161	218	110	76	50	24
14	1220	623	16	15	31	66	130	203	107	68	48	29
15	1100	339	16	14	29	110	110	210	97	117	51	318
16	771	145	16	13	35	200	97	229	97	128	47	255
17	1670	99	19	13	50	170	94	225	155	85	72	96
18	948	84	23	13	80	150	116	245	116	67	80	65
19	372	59	19	13	160	230	161	321	99	58	55	480
20	206	49	17	15	90	500	210	233	97	57	45	614
21	168	41	15	51	70	300	261	181	94	55	46	298
22	575	37	14	48	350	200	257	196	87	55	44	266
23	312	34	13	53	200	190	221	206	82	71	39	143
24	178	32	13	290	120	240	188	188	70	64	35	104
25	225	32	13	442	80	300	210	181	66	75	31	82
26	249	35	14	165	64	180	325	185	75	87	29	68
27	552	32	19	89	50	120	269	185	139	78	27	59
28	334	34	40	64	44	84	196	218	108	72	25	56
29	286	113	42	50	---	72	175	175	88	58	25	117
30	199	105	35	40	---	61	245	168	83	50	30	95
31	161	---	30	32	---	66	---	269	---	45	59	---
TOTAL	12663	4061	753	1708	1998	3884	5902	7418	4155	2753	1433	3482
MEAN	408	135	24.3	55.1	71.4	125	197	239	139	88.8	46.2	116
MAX	1670	623	70	442	350	500	673	699	396	242	102	614
MIN	55	32	13	13	20	28	82	168	66	45	25	14
CFSM	16.8	5.56	1.00	2.27	2.94	5.14	8.11	9.84	5.72	3.65	1.90	4.77
IN.	19.38	6.19	1.15	2.61	3.06	5.95	9.03	11.36	6.36	4.21	2.19	5.33
AC-FT	25120	8020	1490	3390	3960	7700	11710	14710	8240	5460	2840	6910

CAL YR 1977 TOTAL 55202 MEAN 151 MAX 1670 MIN 13 CFSM 6.21 IN 84.50 AC-FT 109500
WTR YR 1978 TOTAL 50190 MEAN 138 MAX 1670 MIN 13 CFSM 5.64 IN 76.83 AC-FT 99550

15109000 FISH CREEK NEAR AUKE BAY

LOCATION.--Lat 58°19'50", long 134°35'20", City and Borough of Juneau, Hydrologic Unit 19080000, on Douglas Island, in North Tongass National Forest, on right bank 400 ft (120 m) upstream from bridge on North Douglas Highway and 4.5 mi (7.2 km) southeast of Auke Bay.

DRAINAGE AREA.--13.6 mi² (35.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1978 (discontinued).

REVISED RECORDS.--WRD Alaska 1972: 1971 (M).

GAGE.--Water-stage recorder. Altitude of gage is 17 ft (5.2 m), by levels from tide line.

REMARKS.--Records fair except those for Nov. 18 to Mar. 12 and Apr. 27 to June 29, which are poor.

AVERAGE DISCHARGE.--20 years, 77.8 ft³/s (2.203 m³/s), 77.69 in/yr (1,973 mm/yr), 56,370 acre-ft/yr (69.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Oct. 2, 1961, gage height, 5.05 ft (1.539 m); maximum gage height, 7.54 ft (2.298 m) Jan. 30, 1962, ice jam; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Feb. 4-7, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 890 ft³/s (25.2 m³/s) Oct. 17, gage height, 4.32 ft (1.311 m), no peak above base of 900 ft³/s (25 m³/s); minimum daily, 2.5 ft³/s (0.071 m³/s) Jan. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	53	15	4.9	17	14	15	90	500	115	18	21
2	28	36	14	4.4	15	13	20	97	164	209	17	15
3	21	35	13	4.0	14	12	19	100	154	206	16	12
4	17	113	12	4.0	13	11	18	77	124	134	23	12
5	14	66	12	3.9	18	11	16	66	91	75	30	11
6	12	41	11	3.8	70	10	15	62	86	61	29	10
7	22	33	11	3.4	54	10	39	63	100	49	44	9.3
8	103	27	10	3.0	42	9.8	35	75	126	39	109	7.8
9	31	20	10	2.7	33	9.8	58	70	100	36	89	6.9
10	25	18	9.6	2.8	26	10	148	69	60	20	91	6.4
11	111	24	9.4	2.9	23	11	44	82	42	18	44	10
12	201	32	9.0	3.0	21	10	33	128	42	37	29	9.9
13	397	95	8.9	2.8	19	9.3	29	133	44	38	39	8.8
14	388	99	8.8	2.6	18	8.4	25	130	39	65	90	9.3
15	268	70	8.6	2.6	18	8.8	14	150	34	123	43	34
16	221	34	8.5	2.7	16	10	20	180	80	129	30	30
17	546	22	8.4	2.6	16	17	20	170	140	52	127	17
18	265	18	8.2	2.5	15	15	30	190	48	37	64	10
19	131	17	8.1	2.5	38	39	46	210	70	30	36	292
20	66	17	8.0	2.5	48	22	71	155	115	32	23	317
21	63	16	8.0	3.7	31	26	84	132	90	28	197	123
22	354	16	8.0	5.6	30	17	78	140	64	36	197	113
23	138	16	8.0	11	28	14	67	145	50	99	197	71
24	67	17	7.6	30	26	13	68	155	42	90	197	56
25	46	20	7.2	72	23	12	68	160	70	124	197	49
26	72	18	6.8	40	20	12	82	220	200	99	197	42
27	199	16	6.4	26	17	13	77	200	150	55	198	39
28	121	17	6.0	20	15	16	74	190	100	55	17	39
29	84	18	5.4	18	---	14	72	170	58	33	15	61
30	142	16	5.3	17	---	12	80	165	71	26	15	58
31	87	---	5.2	17	---	12	---	300	---	29	14	---
TOTAL	4285	1040	277.4	323.9	724	422.1	1465	4274	3054	2179	2432	1500.4
MEAN	138	34.7	8.95	10.4	25.9	13.6	48.8	138	102	70.3	78.5	50.0
MAX	546	113	15	72	70	39	148	300	500	209	198	317
MIN	12	16	5.2	2.5	13	8.4	14	62	34	18	14	6.4
CFSM	10.1	2.55	.66	.77	1.90	1.00	3.59	10.1	7.50	5.17	5.77	3.68
IN.	11.72	2.84	.76	.89	1.98	1.15	4.01	11.69	8.35	5.96	6.65	4.10
AC-FT	8500	2060	550	642	1440	837	2910	8480	6060	4320	4820	2980

CAL YR 1977 TOTAL 27717.7 MEAN 75.9 MAX 546 MIN 5.2 CFSM 5.58 IN 75.81 AC-FT 54980
WTR YR 1978 TOTAL 21976.8 MEAN 60.2 MAX 546 MIN 2.5 CFSM 4.43 IN 60.11 AC-FT 43590

BEST DOCUMENT AVAILABLE

SOUTHEAST ALASKA

15109000 FISH CREEK NEAR AUKE BAY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966-68, 1970-71, and 1974 to 1978 (discontinued).

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
FEB					
28...	1310	15	47	--	5.0
MAR					
30...	1730	12	49	7.4	3.0

BEST DOCUMENT AVAILABLE

15195000 DICK CREEK NEAR CORDOVA

LOCATION.--Lat 60°20'32", long 144°18'10", in NW¼ sec.2, T.18 S., R.6 E., Hydrologic Unit 19050003, Chugach National Forest, on left bank 1.2 mi (1.9 km) upstream from mouth at Bering Lake, and 52 mi (84 km) southeast of Cordova.

DRAINAGE AREA.--7.95 mi² (20.59 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (9 m), from topographic map. Prior to Sept. 23, 1972 at site 100 ft (30 m) downstream at same datum.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Nov. 14 to Dec. 22 and Feb. 6 to Apr. 18, which are poor.

AVERAGE DISCHARGE.--8 years, 127 ft³/s (3.597 m³/s), 216.94 in/yr (5,510 mm/yr), 92,010 acre-ft/yr (113 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Sept. 18, 1975, gage height, 8.95 ft (2.728 m), from rating curve extended above 940 ft³/s (27 m³/s) on basis of slope-conveyance study; minimum daily, 4.0 ft³/s (0.11 m³/s) Mar. 1-20, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 15	0600	*1,970	55.8	*8.57	2.612	Sept.12	1230	1,530	43.3	8.11	2.472
July 5	0630	1,600	45.3	8.19	2.496	Sept.19	1930	1,660	47.0	8.26	2.518

Minimum daily discharge, about 8.0 ft³/s (0.23 m³/s) Dec. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	101	10	10	17	30	25	173	500	126	62	59
2	50	69	10	10	15	40	30	123	284	188	63	44
3	42	59	9.0	9.0	13	30	30	119	208	541	53	38
4	37	52	9.0	9.0	13	30	25	99	175	488	54	33
5	36	47	8.0	9.0	192	40	25	99	168	1070	57	36
6	34	43	8.0	10	250	50	30	89	175	394	44	44
7	98	37	8.0	13	300	80	30	188	166	152	39	254
8	63	33	8.0	40	200	50	40	257	162	101	281	342
9	74	30	9.0	200	100	40	35	208	144	82	276	99
10	190	28	12	482	80	30	30	232	128	82	260	63
11	180	27	12	125	50	25	30	182	136	74	89	60
12	182	27	14	260	50	25	25	175	142	152	76	535
13	92	25	20	47	70	20	25	170	123	117	515	442
14	269	20	20	38	50	20	30	160	106	98	136	296
15	1340	18	15	31	50	25	30	146	182	79	83	766
16	374	18	12	29	30	40	30	230	288	74	86	490
17	320	16	12	27	30	50	30	286	150	82	82	128
18	136	16	10	64	80	40	35	377	289	68	63	335
19	92	14	10	517	100	40	44	237	266	254	50	530
20	398	14	9.0	446	100	50	54	156	180	190	87	386
21	281	14	9.0	132	60	60	86	154	152	302	63	117
22	332	14	9.0	73	80	50	83	138	121	349	45	81
23	178	10	9.1	228	100	40	65	142	116	154	41	62
24	218	10	9.1	442	150	30	79	568	101	231	36	50
25	110	10	19	96	100	25	92	390	330	172	34	44
26	150	14	101	63	60	25	336	299	712	106	30	39
27	342	18	104	47	50	25	284	168	386	96	28	34
28	490	18	37	30	40	30	132	328	185	78	27	30
29	430	14	21	20	---	40	93	346	136	67	29	299
30	164	12	12	15	---	30	81	358	119	66	104	82
31	121	---	12	10	---	25	---	691	---	64	89	---
TOTAL	6887	828	567.2	3532.0	2430	1135	1964	7288	6330	6096	2982	5818
MEAN	222	27.6	18.3	114	86.8	36.6	65.5	235	211	197	96.2	194
MAX	1340	101	104	517	300	80	336	691	712	1070	515	766
MIN	34	10	8.0	9.0	13	20	25	89	101	64	27	30
CFSM	27.9	3.47	2.30	14.3	10.9	4.60	8.24	29.6	26.5	24.8	12.1	24.4
IN.	32.22	3.87	2.65	16.52	11.37	5.31	9.19	34.10	29.62	28.52	13.95	27.22
AC-FT	13660	1640	1130	7010	4820	2250	3900	14460	12560	12090	5910	11540

CAL YR 1977 TOTAL 57285.2 MEAN 157 MAX 1420 MIN 8.0 CFSM 19.7 IN 268.01 AC-FT 113600
WTR YR 1978 TOTAL 45857.2 MEAN 126 MAX 1340 MIN 8.0 CFSM 15.8 IN 214.55 AC-FT 90960

15195000 DICK CREEK NEAR CORDOVA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1971 to current year.

INSTRUMENTATION.--Temperature recorder since July 23, 1971.

REMARKS.--Temperature records are poor and may be in error by as much as 3°C because of instrument malfunction. However, the temperature trends are still usable.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 11.5°C Aug. 12, 1972 and Aug. 10, 1977; minimum, 0.0°C at times during winter period most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum not determined; minimum, 0.0°C on many days during winter period.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 05...	0815	37	65	6.6	5.5	--	--	--	10.8	--	--
FEB 01...	1330	16	73	6.0	1.0	0	<1.0	766	11.8	29	13
APR 19...	1330	38	67	7.0	4.0	2	<1.0	--	12.4	28	10
MAY 25...	1145	371	35	5.8	2.5	3	5.0	--	12.3	15	8
JUN 27...	1200	330	40	6.6	4.0	4	5.0	760	12.4	16	7
JUL 26...	1300	93	49	--	7.0	5	<1.0	766	10.6	20	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 05...	--	.7	--	--	20	0	17	--	--	--	--
FEB 01...	10	1.0	2.6	.2	20	0	12	1.6	--	--	--
APR 19...	9.5	1.0	2.9	.1	22	0	14	2.2	.1	1.9	43
MAY 25...	5.7	.3	1.5	.0	9	0	7.8	1.3	--	--	--
JUN 27...	5.6	.6	1.5	.1	11	0	8.1	.9	--	--	--
JUL 26...	6.7	.8	2.1	.1	--	--	10	.7	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	.05	--	.00	--	.04	--	.04	--	.09	.00
FEB 01...	--	.11	--	.02	--	.03	--	.05	--	--
APR 19...	--	.10	--	.01	--	.23	--	.24	--	--
MAY 25...	--	.05	--	.00	--	.13	--	.13	--	--
JUN 27...	--	.05	--	.03	--	.00	--	--	--	--
JUL 26...	--	.03	--	.01	--	.11	--	.12	--	--

15195000 DICK CREEK NEAR CORDOVA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	TANNIN AND LIGNIN (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
05...	--	<10	10	8	.0	10	.2	.0	1	.10
FEB										
01...	.00	--	--	--	--	--	--	--	1	.04
APR										
19...	.03	--	--	--	--	--	--	--	<1	--
MAY										
25...	.00	--	--	--	--	--	--	--	17	17
JUN										
27...	.01	--	--	--	--	--	--	--	8	7.1
JUL										
26...	.00	--	--	--	--	--	--	--	4	1.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.0	4.5	1.0	.5	1.5	1.5	1.0	1.0	1.0	1.0	1.5	1.5
2	5.5	5.0	1.0	.5	1.5	1.5	1.0	1.0	1.0	1.0	1.5	1.5
3	5.5	5.5	1.0	.5	2.0	1.5	1.0	1.0	1.0	1.0	1.5	1.5
4	5.5	5.5	1.0	.0	3.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
5	5.5	5.5	.5	.0	3.0	3.0	1.5	1.5	2.0	1.0	1.5	1.5
6	5.5	5.5	1.0	.0	3.0	3.0	2.0	1.5	3.0	2.0	1.5	1.5
7	5.5	5.5	.5	.5	3.0	3.0	3.0	2.0	3.5	3.0	2.0	1.5
8	5.5	5.5	.5	.0	3.0	3.0	3.0	---	3.5	3.5	2.0	2.0
9	5.5	5.5	.0	.0	3.0	3.0	---	---	3.5	3.5	2.0	2.0
10	6.0	5.5	.5	.5	3.0	3.0	---	---	3.5	3.0	2.0	2.0
11	6.5	6.0	1.0	.5	3.0	1.5	---	---	3.0	3.0	2.0	2.0
12	6.5	5.5	1.0	---	3.0	2.0	.0	---	3.0	3.0	2.0	2.0
13	5.5	5.0	1.5	.0	3.0	3.0	.0	.0	3.0	3.0	2.0	2.0
14	6.5	5.0	1.5	---	3.0	2.0	.0	.0	3.0	3.0	2.0	2.0
15	7.0	5.5	1.0	.0	3.0	3.0	.0	.0	3.0	3.0	3.0	2.0
16	5.5	5.0	1.0	.5	3.0	3.0	.0	.0	3.0	3.0	3.0	3.0
17	5.5	4.5	.5	.5	3.0	1.5	.0	.0	3.0	3.0	3.0	3.0
18	4.5	3.0	1.0	.5	3.0	3.0	.0	---	3.5	3.0	3.0	3.0
19	3.0	3.0	1.0	1.0	3.0	3.0	1.5	---	3.5	3.5	3.0	3.0
20	3.0	2.0	1.5	1.0	3.0	3.0	.5	.0	3.5	3.5	3.0	3.0
21	3.5	3.0	1.5	1.0	3.0	3.0	1.0	.5	3.5	3.0	3.0	2.0
22	3.5	3.0	1.0	1.0	3.0	3.0	1.0	1.0	3.0	3.0	2.0	1.5
23	3.0	2.0	1.0	1.0	3.0	3.0	3.0	1.0	3.0	3.0	2.0	2.0
24	3.0	2.0	1.0	1.0	3.0	3.0	3.0	1.5	3.0	3.0	3.0	2.0
25	3.0	3.0	1.0	1.0	.5	---	2.0	1.5	3.0	3.0	3.0	3.0
26	3.0	3.0	1.5	1.0	---	---	1.5	1.5	3.0	2.0	3.0	3.0
27	3.0	3.0	1.5	1.5	---	---	1.5	1.0	2.0	1.5	3.0	3.0
28	3.0	3.0	1.5	1.5	---	---	1.0	.5	2.0	1.5	3.0	3.0
29	3.0	2.0	2.0	1.5	---	---	.5	.5	---	---	3.0	3.0
30	2.0	1.5	2.0	1.5	.0	---	.5	.5	---	---	3.0	3.0
31	1.5	.5	---	---	1.0	.0	1.0	.5	---	---	3.0	2.0
MONTH	7.0	.5	2.0	.0	3.0	.0	3.0	.0	3.5	1.0	3.0	1.5

15195000 DICK CREEK NEAR CORDOVA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.0	3.0	3.5	3.0	3.0	3.0	4.5	4.5	9.0	8.5	8.5	8.0
2	3.0	3.0	3.5	3.5	3.0	3.0	4.5	4.5	9.5	9.0	8.5	8.5
3	3.0	3.0	3.5	3.0	3.0	3.0	4.5	4.5	9.5	9.0	8.5	8.5
4	3.0	2.0	3.5	3.0	3.0	3.0	4.5	4.0	9.5	9.5	8.5	8.5
5	3.0	2.0	3.5	3.0	3.5	3.0	---	4.0	9.0	8.5	8.5	8.5
6	3.0	2.0	3.5	3.0	3.5	3.0	6.0	5.5	8.5	8.5	8.5	8.5
7	2.0	2.0	3.5	3.0	3.5	3.0	6.5	5.5	8.5	8.5	8.5	5.0
8	2.0	2.0	3.0	3.0	3.5	3.5	7.0	6.0	8.5	5.0	5.0	3.5
9	2.0	1.5	3.0	3.0	3.5	3.5	7.0	6.5	7.0	4.0	5.0	3.5
10	2.0	2.0	3.0	3.0	3.5	3.5	7.5	7.0	6.0	5.0	5.5	5.0
11	2.0	2.0	3.0	2.0	3.5	3.0	7.0	6.5	6.5	5.5	5.5	5.0
12	2.0	1.5	3.0	3.0	4.0	3.5	6.5	6.0	7.0	6.5	---	---
13	3.0	1.5	3.0	3.0	3.5	3.5	6.0	6.0	---	---	---	9.0
14	3.0	2.0	3.5	3.0	3.5	3.5	6.5	6.0	8.0	8.0	9.5	9.0
15	3.0	3.0	3.5	3.0	3.5	3.0	6.5	6.5	9.0	8.0	---	---
16	3.5	2.0	3.5	3.5	3.0	3.0	7.0	6.5	9.0	9.0	9.5	8.5
17	3.5	2.0	3.5	3.5	3.0	3.0	8.0	7.0	8.5	8.5	9.0	8.5
18	3.5	2.0	3.5	3.5	3.0	3.0	8.5	8.0	8.5	8.0	8.5	6.5
19	3.5	3.0	3.5	3.5	3.0	3.0	9.0	8.5	9.0	8.5	---	---
20	3.5	3.0	3.0	2.0	3.0	2.0	9.0	9.0	9.0	8.5	8.5	6.5
21	4.0	3.5	2.0	1.5	3.0	2.0	9.0	9.0	8.5	8.0	7.0	5.5
22	4.0	3.5	2.0	1.5	3.0	3.0	9.0	7.0	8.5	8.5	6.5	5.0
23	4.0	3.5	2.0	2.0	4.0	3.5	8.5	8.0	8.5	8.0	6.5	5.0
24	3.5	3.5	2.0	2.0	4.0	4.0	8.5	8.5	8.5	8.5	7.0	5.0
25	3.0	3.0	3.0	2.0	4.0	4.0	8.5	8.0	8.5	8.0	7.0	6.0
26	3.5	1.5	3.0	3.0	4.0	4.0	8.0	7.0	8.5	8.0	6.5	5.5
27	3.5	3.0	3.0	2.0	4.0	4.0	8.0	8.0	8.5	8.5	6.0	5.0
28	3.5	3.5	2.0	2.0	4.0	4.0	8.5	8.0	8.5	8.5	8.0	6.0
29	3.5	3.0	2.0	2.0	4.0	4.0	9.0	8.0	8.0	8.0	9.0	7.0
30	3.5	3.0	2.0	2.0	4.5	4.0	8.5	8.0	8.0	8.0	8.0	6.0
31	---	---	2.0	2.0	---	---	9.0	8.5	8.0	8.0	---	---
MONTH	4.0	1.5	3.5	1.5	4.5	2.0		4.0				

15200280 GULKANA RIVER AT SOURDOUGH

LOCATION.--Lat 62°31'15", long 145°31'51", in NE¼ sec.35, T.19 N., R.2 W., Hydrologic Unit 19050003, on left bank 0.3 mi (0.5 km) downstream from Sourdough Creek, and 0.8 mi (1.3 km) southwest of Sourdough.

DRAINAGE AREA.--1,770 mi^2 (4,580 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1978 (discontinued).

REVISED RECORDS.--WDR AK-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,845.96 ft (562.649 m) National Geodetic Vertical Datum of 1929 (levels by Alyeska Engineering).

AVERAGE DISCHARGE.--6 years, 1,063 ft^3/s (30.10 m^3/s), 8.16 in/yr (207 mm/yr), 770,100 acre-ft/yr (9.50 hm^3/yr).

REMARKS.--Water-discharge records good except those for Oct. 17 to May 6, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s (260 m^3/s) June 2, 1977, gage height, 10.07 ft (3.069 m); maximum gage height, 16.03 ft (4.886 m) May 7, 1976, backwater from ice; minimum daily discharge, about 200 ft^3/s (5.66 m^3/s) Dec. 6, 1973 to Apr. 12, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,970 ft^3/s (226 m^3/s) May 9, gage height, 9.54 ft (2.908 m); maximum gage height, about 10.1 ft (3.1 m) May 6, backwater from ice; minimum daily discharge, about 210 ft^3/s (5.9 m^3/s) Feb. 4-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1430	490	290	240	220	220	340	620	2170	2570	1190	666
2	1310	480	280	240	220	240	340	840	2260	2630	1100	694
3	1220	470	280	240	220	240	360	1100	2230	2570	1030	694
4	1180	460	280	240	210	240	360	1500	2120	2310	1010	673
5	1120	450	280	240	210	240	360	2100	2020	2080	982	666
6	1070	440	270	240	210	260	360	2800	1880	1900	966	659
7	1030	430	270	240	210	260	380	3950	1920	1760	982	645
8	990	420	270	240	210	260	380	5060	2180	1650	950	645
9	966	410	270	240	210	260	380	5140	2270	1540	926	645
10	926	400	270	230	210	260	380	4980	2210	1430	934	638
11	910	390	260	230	210	280	380	5200	2060	1340	1010	638
12	878	390	260	230	210	280	380	5280	1960	1260	1020	631
13	862	380	260	230	210	280	400	5160	1880	1210	1010	624
14	838	370	260	230	210	280	400	5150	1810	1280	974	610
15	780	360	260	230	210	280	400	5060	1720	1610	934	603
16	736	360	260	230	210	300	400	4820	1640	2330	910	603
17	700	350	260	230	210	300	420	4310	1580	2600	870	610
18	680	340	260	230	210	300	420	3650	1590	2430	822	603
19	670	340	250	230	210	300	420	3100	1570	2190	782	610
20	650	330	250	230	210	300	420	2710	1720	1960	750	638
21	640	330	250	230	210	320	440	2510	1820	1770	743	715
22	630	320	250	230	210	320	440	2370	1710	1730	736	838
23	610	320	250	220	210	320	440	2250	1640	1790	729	854
24	600	310	250	220	220	320	460	2150	1960	1740	722	830
25	580	310	250	220	220	320	460	2210	2470	1640	701	806
26	570	300	250	220	220	320	470	2250	2870	1630	687	790
27	550	300	250	220	220	320	480	2550	3400	1720	666	782
28	540	300	250	220	220	320	490	3200	3800	1680	659	766
29	530	290	250	220	---	340	510	2770	3360	1560	652	766
30	520	290	240	220	---	340	550	2470	2880	1420	652	774
31	500	---	240	220	---	340	---	2250	---	1300	652	---
TOTAL	25216	11130	8070	7130	5960	8960	12420	99510	64700	56630	26751	20716
MEAN	813	371	260	230	213	289	414	3210	2157	1827	863	691
MAX	1430	490	290	240	220	340	550	5280	3800	2630	1190	854
MIN	500	290	240	220	210	220	340	620	1570	1210	652	603
CFSM	.46	.21	.15	.13	.12	.16	.23	1.81	1.22	1.03	.49	.39
IN.	.53	.23	.17	.15	.13	.19	.26	2.09	1.36	1.19	.56	.44
AC-FT	50020	22080	16010	14140	11820	17770	24640	197400	128300	112300	53060	41090

CAL YR 1977 TOTAL 459427 MEAN 1259 MAX 9120 MIN 240 CFSM .71 IN 9.66 AC-FT 911300
WTR YR 1978 TOTAL 347193 MEAN 951 MAX 5280 MIN 210 CFSM .54 IN 7.30 AC-FT 688700

NOTE.--No gage-height record Oct. 23 to Apr. 30.

15200280 GULKANA RIVER AT SOURDOUGH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to 1978 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1972 to September 1978 (discontinued).

INSTRUMENTATION.--Temperature recorder since Oct. 1, 1972.

REMARKS.--No temperature record Oct. 4 to Apr. 30 and Aug. 18 to Sept. 20 when probe was out of water or frozen in ice. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C July 9, 11, 1976; minimum, 0.0°C on most days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C August 3; minimum, 0.0°C on most days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)
DEC										
15...	1100	--	--	261	205	--	.0	5	<1.0	722
MAR										
24...	1630	--	--	317	210	7.2	.0	--	--	706
MAY										
25...	1230	--	--	2240	110	7.0	7.5	30	5.0	701
JUL										
08...	1430	--	--	1680	129	8.0	14.5	30	5.0	719
AUG										
04...	1330	--	--	958	150	--	18.5	20	5.0	712
SEP										
20...	1815	--	34	--	182	--	7.0	--	--	--
20...	1825	--	54	--	182	--	7.0	--	--	--
20...	1837	--	79	--	182	--	7.0	--	--	--
20...	1848	--	109	--	182	--	7.0	--	--	--
20...	1858	--	144	--	182	--	7.0	--	--	--
20...	2000	200	--	656	182	8.0	--	--	--	703

DATE	OXYGEN, DIS-SOLVED (MG/L)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
DEC									
15...	8.3	--	--	.12	.10	.04	--	--	--
MAR									
24...	9.8	105	0	.12	.17	.03	--	.19	--
MAY									
25...	10.5	52	0	.03	.02	.04	.00	.43	.43
JUL									
08...	9.8	67	0	.00	.02	.01	--	.47	--
AUG									
04...	9.4	82	0	.01	.00	.02	.00	.75	.71
SEP									
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	10.0	100	0	--	--	--	--	--	--

15200280 GULKANA RIVER AT SOURDOUGH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
DEC									
15...	--	--	--	.03	.03	2.3	.4	2	1.4
MAR									
24...	.22	--	.34	.03	.03	2.2	--	9	7.7
MAY									
25...	.47	.43	.50	.02	.01	7.8	.3	26	157
JUL									
08...	.48	--	.48	.02	.02	7.3	.3	10	45
AUG									
04...	.77	.71	.78	.00	.00	7.8	.3	8	21
SEP									
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.0	1.5			---	---	.0	.0				
2	2.5	1.0			---	---	---	---				
3	2.5	1.0			---	---	---	---				
4	---	---			---	---	---	---				
5	---	---			---	---	---	---				
6	---	---			---	---	---	---				
7	---	---			---	---	---	---				
8	---	---			---	---	---	---				
9	---	---			---	---	---	---				
10	---	---			---	---	---	---				
11	---	---			---	---	---	---				
12	---	---			---	---	---	---				
13	---	---			---	---	---	---				
14	---	---			---	---	---	---				
15	---	---			.0	.0	---	---				
16	---	---			---	---	---	---				
17	---	---			---	---	---	---				
18	---	---			---	---	---	---				
19	---	---			---	---	---	---				
20	---	---			---	---	---	---				
21	---	---			---	---	---	---				
22	---	---			---	---	---	---				
23	---	---			---	---	.0	.0				
24	---	---			---	---	---	---				
25	---	---			---	---	---	---				
26	---	---			---	---	---	---				
27	---	---			---	---	---	---				
28	---	---			---	---	---	---				
29	---	---			---	---	---	---				
30	---	---			---	---	---	---				
31	---	---			.0	.0	---	---				

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			1.5	.0	11.0	8.5	12.5	11.0	20.5	16.5	---	---
2			1.5	.0	11.0	8.5	13.5	11.0	20.0	17.0	---	---
3			1.0	.5	11.0	8.5	13.5	12.0	21.0	17.0	---	---
4			1.5	.0	12.5	9.0	14.5	12.5	20.5	17.5	---	---
5			1.0	.5	13.5	10.0	14.0	13.0	18.0	15.5	---	---
6			1.5	.0	13.0	11.5	14.5	12.5	16.5	14.0	---	---
7			1.0	.5	13.0	11.0	14.5	13.0	17.0	14.5	---	---
8			1.0	.0	13.0	10.5	16.0	12.5	16.0	14.0	---	---
9			1.5	.0	14.0	10.0	17.5	13.0	17.0	13.0	---	---
10			1.5	.5	15.0	11.5	19.0	14.5	16.0	14.0	---	---
11			3.0	1.5	16.0	12.5	18.5	15.5	16.5	14.0	---	---
12			4.5	2.0	16.5	13.0	17.5	15.5	15.0	13.0	---	---
13			4.5	3.0	15.5	13.0	17.0	14.5	14.5	12.5	---	---
14			5.5	3.0	14.0	12.0	17.0	13.0	14.0	12.0	---	---
15			6.0	3.5	14.0	11.0	13.5	12.0	14.0	11.0	---	---
16			6.0	4.0	13.0	10.5	13.0	11.5	13.5	11.5	---	---
17			6.0	3.5	12.0	9.0	13.5	11.0	13.5	11.0	---	---
18			6.0	4.0	11.5	9.5	14.0	11.5	---	---	---	---
19			7.0	4.0	10.5	9.0	15.0	13.0	---	---	---	---
20			7.5	5.0	12.5	9.0	14.5	13.0	---	---	---	---
21			9.5	6.0	13.5	9.0	13.5	12.0	---	---	5.0	4.0
22			9.5	7.0	13.5	11.0	13.0	11.0	---	---	5.0	4.0
23			10.5	7.5	13.0	11.0	15.0	11.5	---	---	4.5	2.5
24			10.0	8.0	11.5	10.5	15.0	13.0	---	---	3.5	3.0
25			9.0	7.5	11.0	10.0	16.0	13.5	---	---	4.5	3.5
26			8.0	7.5	10.5	9.5	16.0	14.0	---	---	4.5	3.5
27			8.0	5.5	10.5	9.0	15.5	13.5	---	---	5.0	3.5
28			9.5	6.5	12.0	9.0	17.0	13.5	---	---	4.0	3.5
29			9.0	8.0	13.0	10.0	18.0	14.0	---	---	4.5	4.0
30			8.5	7.5	12.5	11.0	19.0	14.5	---	---	4.5	2.0
31			9.5	7.5	---	---	19.5	15.5	---	---	---	---
MONTH			10.5	.0	16.5	8.5	19.5	11.0	21.0			2.0

15207800 LITTLE TONSINA RIVER NEAR TONSINA

LOCATION.--Lat 61°28'49", long 145°09'05", in NW¼ sec.36, T.4 S., R.1 E., Hydrologic Unit 19050003, on right bank 50 ft (15 m) downstream from Richardson Highway crossing, and 15.4 mi (24.8 km) south of Tonsina.

DRAINAGE AREA.--22.7 mi² (58.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1972 to September 1978 (discontinued).

REVISED RECORDS.--WDR AK-75-1: 1973, 1974.

GAGE.--Water-stage recorder. Altitude of gage is 1,850 ft (564 m), from topographic map.

REMARKS.--Water-discharge records good except those for period of no gage-height record, Oct. 31 to May 23, which are poor.

AVERAGE DISCHARGE.--6 years, 32.3 ft³/s (0.915 m³/s), 19.32 in/yr (491 mm/yr), 23,400 acre-ft/yr (28.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) July 20, 1977, gage height, 7.34 ft (2.237 m); minimum daily, about 3 ft³/s (0.085 m³/s) Mar. 6 to Apr. 26, 1974 and Jan. 6-10, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98 ft³/s (2.78 m³/s) June 12, gage height, 5.76 ft (1.756 m); minimum daily, about 5 ft³/s (0.14 m³/s) Mar. 4-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	25	12	9.0	7.0	6.0	6.0	20	28	48	55	23
2	34	24	12	9.0	7.0	6.0	6.0	22	28	43	56	23
3	33	24	11	9.0	7.0	6.0	6.0	25	28	45	56	25
4	34	24	11	9.0	7.0	5.0	6.0	28	28	53	56	24
5	34	23	10	9.0	7.0	5.0	6.0	30	29	58	65	24
6	34	23	10	9.0	7.0	5.0	7.0	35	33	69	59	26
7	33	22	10	9.0	7.0	5.0	7.0	40	59	66	56	26
8	32	22	10	9.0	7.0	5.0	7.0	45	57	57	55	26
9	30	22	10	9.0	7.0	5.0	7.0	50	60	57	51	25
10	30	21	10	9.0	7.0	5.0	7.0	48	57	59	49	23
11	30	21	10	8.0	7.0	5.0	7.0	48	63	62	46	22
12	30	20	10	8.0	7.0	5.0	7.0	46	88	72	46	22
13	30	20	10	8.0	7.0	5.0	7.0	46	73	76	45	27
14	30	20	10	8.0	7.0	5.0	7.0	44	60	65	43	27
15	32	19	10	8.0	7.0	5.0	7.0	42	60	59	38	24
16	34	19	10	8.0	6.0	6.0	8.0	42	71	55	38	22
17	34	18	10	8.0	6.0	6.0	8.0	40	57	48	38	21
18	32	18	10	8.0	6.0	6.0	8.0	40	46	48	37	20
19	31	17	10	8.0	6.0	6.0	8.0	38	41	56	34	21
20	30	17	10	8.0	6.0	6.0	10	38	41	67	32	24
21	30	16	10	8.0	6.0	6.0	10	38	40	62	34	22
22	29	16	10	8.0	6.0	6.0	10	36	49	57	34	21
23	29	16	10	8.0	6.0	6.0	10	35	82	63	37	19
24	29	15	9.0	8.0	6.0	6.0	12	33	68	58	30	19
25	28	15	9.0	8.0	6.0	6.0	12	30	56	55	29	18
26	28	14	9.0	8.0	6.0	6.0	12	33	51	48	27	18
27	27	14	9.0	8.0	6.0	6.0	14	30	45	45	26	17
28	27	13	9.0	8.0	6.0	6.0	14	29	43	46	25	16
29	26	13	9.0	7.0	---	6.0	16	28	45	45	24	16
30	26	12	9.0	7.0	---	6.0	18	27	53	48	24	15
31	26	---	9.0	7.0	---	6.0	---	27	---	53	24	---
TOTAL	948	563	308.0	255.0	183.0	174.0	270.0	1113	1539	1743	1269	656
MEAN	30.6	18.8	9.94	8.23	6.54	5.61	9.00	35.9	51.3	56.2	40.9	21.9
MAX	36	25	12	9.0	7.0	6.0	18	50	88	76	65	27
MIN	26	12	9.0	7.0	6.0	5.0	6.0	20	28	43	24	15
CFSM	1.35	.83	.44	.36	.29	.25	.40	1.58	2.26	2.48	1.80	.97
IN.	1.55	.92	.50	.42	.30	.29	.44	1.82	2.52	2.86	2.08	1.07
AC-FT	1880	1120	611	506	363	345	536	2210	3050	3460	2520	1300

CAL YR 1977 TOTAL 21398.0 MEAN 58.6 MAX 202 MIN 9.0 CFSM 2.58 IN 35.06 AC-FT 42440
WTR YR 1978 TOTAL 9021.0 MEAN 24.7 MAX 88 MIN 5.0 CFSM 1.09 IN 14.78 AC-FT 17890

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to 1978 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1972 to September 1978 (discontinued).

INSTRUMENTATION.--Temperature recorder since Oct. 1, 1972.

REMARKS.--Recorder shut down for winter period Nov. 9 to Mar. 24.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 12.0°C July 17, 18, 28 and Aug. 16-18, 1974, Aug. 4, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 12.0°C Aug. 4; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
DEC 07...	1200	10	124	6.8	.5	7	1.5	726	12.9
MAR 25...	1400	6.2	135	6.9	.5	--	--	704	13.2
MAY 23...	1700	38	92	6.9	7.5	15	5.0	712	9.8
JUL 07...	1700	67	55	7.0	8.5	5	10	719	9.9
AUG 03...	1930	57	60	6.8	11.5	5	10	717	9.9
SEP 19...	1700	20	125	6.8	5.0	--	--	700	11.0

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
DEC 07...	63	0	.21	.11	.07	.00	.21	.24	.28
MAR 25...	77	0	.09	.13	.01	.01	.15	.14	.16
MAY 23...	50	0	.33	.34	.03	.00	.46	.15	.49
JUL 07...	28	0	.01	.02	.01	.01	.33	.37	.34
AUG 03...	26	0	.01	.00	.02	.01	.22	.25	.24
SEP 19...	47	0	--	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
DEC 07...	.24	.49	.01	.02	.9	.2	4	.11
MAR 25...	.15	.25	.01	.01	1.5	--	4	.07
MAY 23...	.15	.82	.01	.01	6.1	.2	14	1.4
JUL 07...	.38	.35	.02	.01	5.3	.2	16	2.9
AUG 03...	.26	.25	.00	.00	2.9	.4	14	2.2
SEP 19...	--	--	--	--	--	--	--	--

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977

DATE TIME	JUL 11.77 1040	JUL 11.77 1106	JUL 11.77 1125	JUL 11.77 1200	JUL 11.77 1220	JUL 11.77 1250
TOTAL COUNT	3	79	273	1	357	75
DIVERSITY: PHYLUM	0.9	0.1	0.2	0.0	0.2	0.6
.CLASS	0.9	0.1	0.2	0.0	0.2	0.6
..ORDER	0.9	0.7	0.3	0.0	0.8	0.8
...FAMILY	0.9	0.9	0.6	0.0	1.4	1.1
....GENUS	1.6	2.1	2.0	0.0	2.5	2.6
....GENUS-INSECTA	1.0	2.0	1.9	0.0	2.3	2.2
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT
ANNELIDA						
.OLIGOCHAETA						
..PLESIOPORA						
...ENCHYTRAEIDAE						
....UNKNOWN GENUS	1	--	--	--	14	--
...NAIDIDAE						
....UNKNOWN GENUS	--	--	--	--	--	6
..PROSOPORA						
...LUMBRICULIDAE						
....UNKNOWN GENUS	--	--	8	--	--	4
..UNKNOWN ORDER						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #5	--	1	--	--	--	--
ARTHROPODA (ARTHROPODS)						
.ARACHNIDA						
..ACARINA						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #1	--	--	--	--	--	--
.INSECTA						
..DIPTERA						
...CHIRONOMIDAE						
....BRILLIA	1	--	--	--	--	--
....CHAETOCLADIUS	--	--	2	--	--	--
....CONCHAPELOPIA	--	3	2	--	--	--
....CORYNONEURA	--	--	--	--	--	--
....CRICOTOPUS	--	--	6	--	17	22
....DIAMESA	--	--	8	--	10	--
....DIPLOCLADIUS	--	--	--	--	--	--
....EUKIEFFERIELLA	--	39	172	1	203	23
....HETEROTRISSOCLADIUS	--	--	--	--	--	--
....MICROPSECTRA	--	2	2	--	6	--
....ORTHOCLADIUS	--	23	46	--	15	--
....PHAENOPSECTRA	--	--	--	--	1	--
....POLYPEDILUM	--	--	--	--	--	--
....PSEUDODIAMESA	--	--	8	--	10	4
....RHEOTANYTARSUS	--	--	--	--	--	--
....SMITTIA	1	--	--	--	--	11
....TANYPUS	--	--	2	--	--	--
....THIENEMANNIELLA	--	--	--	--	1	1
....TRICHOCLADIUS	--	--	--	--	--	--
...EMPIDIDAE						
....CHELIFERA	--	3	--	--	1	2
...SIMULIIDAE						
....PROSIMULIUM	--	--	2	--	4	--
....SIMULIUM	--	--	12	--	40	1
...TIPULIDAE						
....ANTOCHA	--	--	--	--	--	--
....DICRANOTA	--	--	--	--	--	--
....UNKNOWN GENUS	--	--	--	--	--	--
..EPHEMEROPTERA						
...BAETIDAE						
....BAETIS	--	2	2	--	9	--
....UNKNOWN GENUS	--	--	--	--	--	--
...EPHEMERELLIDAE						
....EPHEMERELLA	--	--	--	--	--	--
...HEPTAGENIIDAE						
....CINYGMULA	--	--	--	--	8	--
....EPEORUS	--	--	1	--	12	--
....UNKNOWN GENUS	--	--	--	--	--	--
..ODONATA						
...COENAGRIIDAE						
....UNKNOWN GENUS	--	--	--	--	--	--
..PLECOPTERA						
...CAPNIIDAE						
....CAPNIA	--	--	--	--	--	--
...CHLOROPERLIDAE						

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977 (CONTINUED)

DATE TIME	JUL 11,77 1040	JUL 11,77 1106	JUL 11,77 1125	JUL 11,77 1200	JUL 11,77 1220	JUL 11,77 1250
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT
....HASTAPERLA	--	--	--	--	--	--
....PARAPERLA	--	4	1	--	--	1
...LEUCTRIDAE						
....DESPAXIA						
.....D. AUGUSTA(BANKS)	--	--	--	--	--	--
...PERLODIDAE						
....ISOPERLA	--	--	--	--	4	--
...TAENIOPTERYGIDAE						
....TAENONEMA	--	--	--	--	--	--
..TRICHOPTERA						
...HYDROPSYCHIDAE						
....SMICRIDEA	--	--	--	--	--	--
....UNKNOWN GENUS	--	--	--	--	--	--
...HYDROPTILIDAE						
....HYDROPTILA	--	--	--	--	--	--
...LIMNEPHILIDAE						
....APATANIA	--	--	--	--	--	--
....CLOSTOECA	--	--	--	--	--	--
....ECCLISOMYIA	--	--	--	--	--	--
....HYDATOPHYLAX	--	--	--	--	--	--
....LIMNEPHILUS	--	--	--	--	--	--
....HESPEROPHYLAX	--	--	--	--	--	--
..DIPTERA						
...CHIRONOMIDAE						
....PSECTROCLADIUS	--	--	--	--	--	--
..PLECOPTERA						
...NEMOURIDAE						
....ZAPADA	--	2	1	--	2	--
..LEPIDOPTERA						
...PYRALIDIDAE						
....PARARGYACTIS	--	--	--	--	--	--
..TRICHOPTERA						
...PHILOPOTAMIDAE						
....DOLOPHILODES	--	--	--	--	--	--
.ARACHNIDA						
..HYDRACARINA						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #3	--	--	--	--	--	--
ECTOPROCTA (BRYOZOANS)						
.PHYLACTOLAEMATA						
..CHEILOSTOMATA						
...PLUMATELLIDAE						
....PLUMATELLA	--	--	--	--	--	--
MOLLUSCA (MOLLUSCS)						
.BIVALVIA						
..NUCULOIDEA						
...CORBICULIDAE						
....CORBICULA	--	--	--	--	--	--
...SPHAERIIDAE						
....SPHAERIUM	--	--	--	--	--	--
PLATYHELMINTHES (FLATWORMS)						
.TURBELLARIA						
..TRICLADIDA						
...PLANARIIDAE						
....UNKNOWN GENUS	--	--	--	--	--	--
STREAM WIDTH	18.5 FT	18.5 FT	18.5 FT	18.5 FT	18.5 FT	18.5 FT
CROSS-SECTION LOCATION	16.0 FT	9.0 FT	2.0 FT	16.5 FT	9.5 FT	16.5 FT
LENGTH OF EXPOSURE	32 DAYS	32 DAYS	32 DAYS	32 DAYS	32 DAYS	32 DAYS
SAMPLING METHOD	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977

DATE TIME	JUL 11.77 1308	AUG 12.77 1145	AUG 12.77 1210	AUG 12.77 1235	AUG 12.77 1255	AUG 12.77 1310
TOTAL COUNT	81	21	484	410	1240	299
DIVERSITY: PHYLUM	0.5	0.3	0.0	0.1	0.0	0.0
.CLASS	0.5	0.3	0.0	0.1	0.1	0.0
..ORDER	1.0	0.3	0.6	0.3	0.6	0.5
...FAMILY	1.2	0.3	0.9	0.5	0.9	0.7
....GENUS	2.5	1.1	1.8	1.6	1.3	1.5
....GENUS-INSECTA	2.2	0.9	1.8	1.6	1.3	1.5
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT
ANNELIDA						
.OLIGOCHAETA						
..PLESIOPORA						
...ENCHYTRAEIDAE						
....UNKNOWN GENUS	--	--	--	--	2	--
...NAIDIDAE						
....UNKNOWN GENUS	--	--	--	--	1	--
..PROSOPORA						
...LUMBRICULIDAE						
....UNKNOWN GENUS	--	--	--	--	--	--
..UNKNOWN ORDER						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #5	9	1	--	4	--	--
ARTHROPODA (ARTHROPODS)						
.ARACHNIDA						
..ACARINA						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #1	--	--	--	--	5	1
.INSECTA						
..DIPTERA						
...CHIRONOMIDAE						
....BRILLIA	--	--	--	4	--	--
....CHAETOCLADIUS	--	14	--	--	--	--
....CONCHAPELOPIA	1	--	31	--	8	--
....CORYNONEURA	--	--	1	--	--	--
....CRICOTOPUS	--	--	2	12	4	4
....DIAMESA	--	--	--	--	--	--
....DIPLOCLADIUS	--	--	3	4	--	1
....EUKIEFFERIELLA	34	--	354	308	996	224
....HETEROTRISSOCLADIUS	--	--	--	--	--	--
....MICROPSECTRA	1	--	3	12	--	4
....ORTHOCLADIUS	21	--	2	--	--	--
....PHAENOPSECTRA	--	--	--	--	--	--
....POLYPEDILUM	--	--	--	--	--	--
....PSEUDODIAMESA	7	--	16	24	52	36
....RHEOTANYTARSUS	--	--	--	--	--	--
....SMITTIA	--	6	--	--	--	--
....TANYPUS	--	--	--	--	--	--
....THIENEMANNIELLA	--	--	11	20	20	3
....TRICHOCLADIUS	--	--	--	4	--	--
...EMPIDIDAE						
....CHELIFERA	1	--	3	--	2	1
...SIMULIIDAE						
....PROSIMULIUM	--	--	1	--	16	--
....SIMULIUM	--	--	7	3	18	4
...TIPULIDAE						
....ANTOCHA	--	--	--	--	--	--
....DICRANOTA	--	--	2	--	--	1
....UNKNOWN GENUS	--	--	--	--	--	--
..EPHEMEROPTERA						
...BAETIDAE						
....BAETIS	--	--	4	4	22	7
....UNKNOWN GENUS	--	--	--	--	--	--
...EPHEMERELLIDAE						
....EPHEMERELLA	--	--	10	3	68	2
...HEPTAGENIIDAE						
....CINYGMULA	1	--	13	3	--	--
....EPEORUS	--	--	--	--	--	--
....UNKNOWN GENUS	--	--	--	--	11	3
..ODONATA						
...COENAGRIIDAE						
....UNKNOWN GENUS	--	--	--	--	--	--
..PLECOPTERA						
...CAPNIIDAE						
....CAPNIA	--	--	--	--	--	--
...CHLOROPERLIDAE						

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15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977 (CONTINUED)

DATE TIME	JUL 11.77 1308	AUG 12.77 1145	AUG 12.77 1210	AUG 12.77 1235	AUG 12.77 1255	AUG 12.77 1310
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT
....HASTAPERLA	--	--	--	--	--	--
....PARAPERLA	1	--	--	2	--	--
...LEUCTRIDAE						
....DESPAXIA						
.....D. AUGUSTA(BANKS)	--	--	--	--	--	--
...PERLODIDAE						
....ISOPERLA	1	--	--	--	7	--
...TAENIOPTERYGIDAE						
....TAENONEMA	--	--	16	1	4	4
..TRICHOPTERA						
...HYDROPSYCHIDAE						
....SMICRIDEA	--	--	--	--	--	--
....UNKNOWN GENUS	--	--	--	--	--	--
...HYDROPTILIDAE						
....HYDROPTILA	--	--	--	--	--	--
...LIMNEPHILIDAE						
....APATANIA	--	--	--	--	--	--
....CLOSTOECA	--	--	--	--	--	--
....ECCLISOMYIA	--	--	--	1	2	--
....HYDATOPHYLAX	--	--	--	--	--	--
....LIMNEPHILUS	--	--	--	--	--	--
....HESPEROPHYLAX	1	--	3	--	--	--
..DIPTERA						
...CHIRONOMIDAE						
....PSECTROCLADIUS	1	--	1	--	--	--
..PLECOPTERA						
...NEMOURIDAE						
....ZAPADA	1	--	1	1	2	4
..LEPIDOPTERA						
...PYRALIDIDAE						
....PARARGYACTIS	--	--	--	--	--	--
..TRICHOPTERA						
...PHILOPOTAMIDAE						
....DOLOPHILODES	1	--	--	--	--	--
.ARACHNIDA						
..HYDRACARINA						
...UNKNOWN FAMILY						
....UNKNOWN GENUS #3	--	--	--	--	--	--
ECTOPROCTA (BRYOZOANS)						
.PHYLACTOLAEMATA						
..CHEILOSTOMATA						
...PLUMATELLIDAE						
....PLUMATELLA	--	--	--	--	--	--
MOLLUSCA (MOLLUSCS)						
.BIVALVIA						
..NUCULOIDEA						
...CORBICULIDAE						
....CORBICULA	--	--	--	--	--	--
...SPHAERIIDAE						
....SPHAERIUM	--	--	--	--	--	--
PLATYHELMINTHES (FLATWORMS)						
.TURBELLARIA						
..TRICLADIDA						
...PLANARIIDAE						
....UNKNOWN GENUS	--	--	--	--	--	--
STREAM WIDTH	18.5 FT	18.0 FT	18.0 FT	18.0 FT	18.0 FT	18.0 FT
CROSS-SECTION LOCATION	9.5 FT	16.0 FT	9.0 FT	16.0 FT	9.0 FT	2.0 FT
LENGTH OF EXPOSURE	32 DAYS	32 DAYS	32 DAYS	32 DAYS	32 DAYS	32 DAYS
SAMPLING METHOD	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET

BEST DOCUMENT AVAILABLE

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977

DATE	AUG 12,77	AUG 12,77	AUG 12,77	SEP 23,77	SEP 23,77
TIME	1325	1330	1345	1015	1045
TOTAL COUNT	326	215	539	660	2696
DIVERSITY: PHYLUM	0.0	0.0	0.0	0.1	0.0
.CLASS	0.0	0.0	0.1	0.1	0.0
..ORDER	0.0	0.9	0.7	0.4	0.1
...FAMILY	0.2	1.2	1.1	0.4	0.1
....GENUS	1.2	2.4	1.7	1.9	1.5
....GENUS-INSECTA	1.2	2.3	1.7	1.8	1.5
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT
ANNELIDA					
.OLIGOCHAETA					
..PLESIOPORA					
...ENCHYTRAEIDAE					
....UNKNOWN GENUS	--	--	2	--	--
...NAIDIDAE					
....UNKNOWN GENUS	--	--	--	--	--
..PROSOPORA					
...LUMBRICULIDAE					
....UNKNOWN GENUS	--	--	--	11	--
..UNKNOWN ORDER					
...UNKNOWN FAMILY					
....UNKNOWN GENUS #5	--	--	--	--	--
ARTHROPODA (ARTHROPODS)					
.ARACHNIDA					
..ACARINA					
...UNKNOWN FAMILY					
....UNKNOWN GENUS #1	--	1	1	--	--
.INSECTA					
..DIPTERA					
...CHIRONOMIDAE					
....BRILLIA	--	--	--	--	--
....CHAETOCLADIUS	--	--	--	--	19
....CONCHAPELOPIA	4	2	6	38	59
....CORYNONEURA	--	--	--	--	--
....CRICOTOPUS	--	4	--	--	--
....DIAMESA	--	--	--	--	--
....DIPLOCLADIUS	--	--	--	--	--
....EUKIEFFERIELLA	254	118	392	272	1564
....HETEROTRISSOCLADIUS	--	--	--	24	120
....MICROPSECTRA	44	1	1	276	896
....ORTHOCLADIUS	5	--	--	--	--
....PHAENOPSECTRA	--	--	--	--	--
....POLYPEDILUM	--	--	--	--	--
....PSEUDODIAMESA	11	6	35	2	6
....RHEOTANYTARSUS	--	--	--	--	--
....SMITTIA	--	41	--	12	--
....TANYPUS	--	--	--	--	--
....THIENEMANNIELLA	1	3	6	--	--
....TRICHOCLADIUS	--	--	--	--	--
...EMPIDIDAE					
....CHELIFERA	6	2	1	--	3
...SIMULIIDAE					
....PROSIMULIUM	--	--	2	--	--
....SIMULIUM	--	--	16	--	3
...TIPULIDAE					
....ANTOCHA	--	--	--	--	--
....DICRANOTA	--	1	--	2	2
....UNKNOWN GENUS	--	--	--	--	--
..EPHEMEROPTERA					
...BAETIDAE					
....BAETIS	--	7	19	--	--
....UNKNOWN GENUS	--	--	--	--	1
...EPHEMERELLIDAE					
....EPHEMERELLA	1	7	31	1	8
...HEPTAGENIIDAE					
....CINYGMULA	--	--	--	--	--
....EPEORUS	--	--	--	--	--
....UNKNOWN GENUS	--	2	9	--	--
..ODONATA					
...COENAGRIIDAE					
....UNKNOWN GENUS	--	--	--	--	--
..PLECOPTERA					
...CAPNIIDAE					
....CAPNIA	--	--	--	--	--
...CHLOROPERLIDAE					

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977 (CONTINUED)

DATE TIME	AUG 12,77 1325	AUG 12,77 1330	AUG 12,77 1345	SEP 23,77 1015	SEP 23,77 1045
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT
....MASTAPERLA	--	--	--	--	--
....PARAPERLA	--	4	7	18	9
...LEUCTRIDAE					
....DESPAXIA					
.....D. AUGUSTA(BANKS)	--	--	--	1	--
...PERLODIDAE					
....ISOPERLA	--	--	2	2	6
...TAENIOPTERYGIDAE					
....TAENONEMA	--	2	3	--	--
..TRICHOPTERA					
...HYDROPSYCHIDAE					
....SMICRIDEA	--	--	--	--	--
....UNKNOWN GENUS	--	--	--	--	--
...HYDROPTILIDAE					
....HYDROPTILA	--	--	--	--	--
...LIMNEPHILIDAE					
....APATANIA	--	--	--	--	--
....CLOSTOECA	--	--	--	--	--
....ECCLISOMYIA	--	9	--	1	--
....HYDATOPHYLAX	--	--	--	--	--
....LIMNEPHILUS	--	--	--	--	--
....HESPEROPHYLAX	--	5	2	--	--
..DIPTERA					
...CHIRONOMIDAE					
....PSECTROCLADIUS	--	--	4	--	--
..PLECOPTERA					
...NEMOURIDAE					
....ZAPADA	--	--	--	--	--
..LEPIDOPTERA					
...PYRALIDIDAE					
....PARARGYACTIS	--	--	--	--	--
..TRICHOPTERA					
...PHILOPOTAMIDAE					
....DOLOPHILODES	--	--	--	--	--
.ARACHNIDA					
..HYDRACARINA					
...UNKNOWN FAMILY					
....UNKNOWN GENUS #3	--	--	--	--	--
ECTOPROCTA (BRYOZOANS)					
.PHYLACTOLAEMATA					
..CHEILOSTOMATA					
...PLUMATELLIDAE					
....PLUMATELLA	--	--	--	--	--
MOLLUSCA (MOLLUSCS)					
.BIVALVIA					
..NUCULOIDEA					
...CORBICULIDAE					
....CORBICULA	--	--	--	--	--
...SPHAERIIDAE					
....SPHAERIUM	--	--	--	--	--
PLATYHELMINTHES (FLATWORMS)					
.TURBELLARIA					
..TRICLADIDA					
...PLANARIIDAE					
....UNKNOWN GENUS	--	--	--	--	--
STREAM WIDTH	--	16.0 FT	18.0 FT	27.0 FT	27.0 FT
CROSS-SECTION LOCATION	--	16.0 FT	9.0 FT	14.5 FT	14.5 FT
LENGTH OF EXPOSURE	--	32 DAYS	32 DAYS	43 DAYS	43 DAYS
SAMPLING METHOD	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977

DATE	SEP 23,77	SEP 23,77	SEP 23,77	SEP 23,77
TIME	1145	1215	1320	1340
TOTAL COUNT	2339	518	1035	1686
DIVERSITY: PHYLUM	0.0	0.1	0.0	0.0
.CLASS	0.0	0.1	0.0	0.0
..ORDER	0.3	0.2	0.3	0.2
...FAMILY	0.5	0.4	0.3	0.3
....GENUS	1.3	1.4	1.5	1.2
....GENUS-INSECTA	1.3	1.4	1.4	1.2
ORGANISM	COUNT	COUNT	COUNT	COUNT
ANNELIDA				
.OLIGOCHAETA				
..PLESIOPORA				
...ENCHYTRAEIDAE				
....UNKNOWN GENUS	--	--	--	--
...NAIDIDAE				
....UNKNOWN GENUS	--	--	--	--
..PROSOPORA				
...LUMBRICULIDAE				
....UNKNOWN GENUS	--	5	3	--
..UNKNOWN ORDER				
...UNKNOWN FAMILY				
....UNKNOWN GENUS #5	2	--	--	--
ARTHROPODA (ARTHROPODS)				
.ARACHNIDA				
..ACARINA				
...UNKNOWN FAMILY				
....UNKNOWN GENUS #1	--	1	--	--
.INSECTA				
..DIPTERA				
...CHIRONOMIDAE				
....BRILLIA	8	--	--	--
....CHAETOCLADIUS	24	--	--	--
....CONCHAPELOPIA	40	10	1	4
....CORYNONEURA	--	--	--	--
....CRICOTOPUS	--	--	--	--
....DIAMESA	8	2	--	4
....DIPLOCLADIUS	--	--	--	--
....EUKIEFFERIELLA	1928	366	640	1208
....HETEROTRISSOCLADIUS	8	12	52	4
....MICROPSECTRA	112	102	300	392
....ORTHOCLADIUS	--	--	--	--
....PHAENOPSECTRA	--	--	--	--
....POLYPEDILUM	40	--	--	--
....PSEUDODIAMESA	40	4	3	20
....RHEOTANYTARSUS	--	--	--	--
....SMITTIA	--	--	--	--
....TANYPUS	--	--	--	--
....THIENEMANNIELLA	--	--	--	4
....TRICHOCLADIUS	--	--	--	--
...EMPIDIDAE				
....CHELIFERA	2	1	--	--
...SIMULIIDAE				
....PROSIMULIUM	2	1	--	1
....SIMULIUM	12	4	--	6
...TIPULIDAE				
....ANTOCHA	3	--	--	--
....DICRANOTA	--	1	--	2
....UNKNOWN GENUS	--	--	4	--
..EPHEMEROPTERA				
...BAETIDAE				
....BAETIS	--	--	--	2
....UNKNOWN GENUS	14	--	--	--
...EPHEMERELLIDAE				
....EPHEMERELLA	56	--	8	19
...HEPTAGENIIDAE				
....CINYGMULA	--	--	--	--
....EPEORUS	--	--	--	--
....UNKNOWN GENUS	2	--	--	--
..ODONATA				
...COENAGRIIDAE				
....UNKNOWN GENUS	--	--	--	--
..PLECOPTERA				
...CAPNIIDAE				
....CAPNIA	--	8	--	9
...CHLOROPERLIDAE				

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY TO SEPTEMBER 1977

DATE	SEP 23,77	SEP 23,77	SEP 23,77	SEP 23,77
TIME	1145	1215	1320	1340
ORGANISM	COUNT	COUNT	COUNT	COUNT
....HASTAPERLA	--	--	--	--
....PARAPERLA	--	1	10	1
...LEUCTRIDAE				
....DESPAXIA				
.....D. AUGUSTA(BANKS)	--	--	--	--
...PERLODIDAE				
....ISOPERLA	14	--	11	5
...TAENIOPTERYGIDAE				
....TAENONEMA	5	--	--	--
..TRICHOPTERA				
...HYDROPSYCHIDAE				
....SMICRIDEA	--	--	--	--
....UNKNOWN GENUS	--	--	--	--
...HYDROPTILIDAE				
....HYDROPTILA	--	--	--	--
...LIMNEPHILIDAE				
....APATANIA	--	--	--	1
....CLOSTOECA	--	--	2	--
....ECCLISOMYIA	2	--	--	2
....HYDATOPHYLAX	2	--	--	--
....LIMNEPHILUS	--	--	--	--
....HESPEROPHYLAX	--	--	--	--
..DIPTERA				
...CHIRONOMIDAE				
....PSECTROCLADIUS	--	--	--	--
..PLECOPTERA				
...NEMOURIDAE				
....ZAPADA	14	--	--	1
..LEPIDOPTERA				
...PYRALIDIDAE				
....PARARGYACTIS	--	--	--	--
..TRICHOPTERA				
...PHILOPOTAMIDAE				
....DOLOPHILODES	--	--	--	--
.ARACHNIDA				
..HYDRACARINA				
...UNKNOWN FAMILY				
....UNKNOWN GENUS #3	--	--	1	--
ECTOPROCTA (BRYOZOANS)				
.PHYLACTOLAEMATA				
..CHEILOSTOMATA				
...PLUMATELLIDAE				
....PLUMATELLA	--	--	--	--
MOLLUSCA (MOLLUSCS)				
.BIVALVIA				
..NUCULOIDEA				
...CORBICULIDAE				
....CORBICULA	--	--	--	--
...SPHAERIIDAE				
....SPHAERIUM	1	--	--	--
PLATYHELMINTHES (FLATWORMS)				
.TURBELLARIA				
..TRICLADIDA				
...PLANARIIDAE				
....UNKNOWN GENUS	--	--	--	1
STREAM WIDTH	27.0 FT	27.0 FT	27.0 FT	27.0 FT
CROSS-SECTION LOCATION	21.5 FT	14.5 FT	21.5 FT	14.5 FT
LENGTH OF EXPOSURE	43 DAYS	43 DAYS	43 DAYS	43 DAYS
SAMPLING METHOD	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASKET WITH NET	BURIED ROCK BASEKT WITH NET

15207800 LITTLE TONSINA RIVER NEAR TONSINA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.0	3.0	2.0	2.0							---	---
2	3.0	3.0	2.0	2.0							---	---
3	3.0	2.5	2.0	2.0							---	---
4	3.5	3.0	2.0	2.0							---	---
5	3.5	3.0	2.0	2.0							---	---
6	3.5	3.0	2.0	2.0							---	---
7	3.5	3.5	2.0	2.0							---	---
8	3.5	3.5	2.0	2.0							---	---
9	4.0	3.5	---	---							---	---
10	4.0	4.0	---	---							---	---
11	4.0	4.0	---	---							---	---
12	4.0	4.0	---	---							---	---
13	4.0	3.0	---	---							---	---
14	3.5	3.0	---	---							---	---
15	3.0	3.0	---	---							---	---
16	3.5	3.0	---	---							---	---
17	3.5	3.5	---	---							---	---
18	3.5	2.5	---	---							---	---
19	2.5	2.0	---	---							---	---
20	2.0	2.0	---	---							---	---
21	2.0	2.0	---	---							---	---
22	2.0	2.0	---	---							---	---
23	2.0	2.0	---	---							---	---
24	2.0	2.0	---	---							---	---
25	2.0	2.0	---	---							.5	.5
26	2.0	2.0	---	---							.5	.5
27	2.0	2.0	---	---							.5	.5
28	2.0	2.0	---	---							.5	.5
29	2.0	2.0	---	---							.5	.5
30	2.0	2.0	---	---							.5	.5
31	2.0	2.0	---	---							.5	.5
MONTH	4.0	2.0	2.0									

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.0	.5	2.0	1.5	7.5	5.5	8.0	6.0	10.5	8.0	8.0	7.0
2	1.0	1.0	2.0	1.5	8.0	5.5	9.5	6.5	10.5	8.0	9.0	7.0
3	1.0	1.0	1.5	1.5	8.0	6.0	9.5	7.0	11.5	8.0	9.0	7.0
4	1.0	1.0	2.0	1.5	10.0	6.0	8.5	7.0	12.0	9.0	9.0	7.0
5	1.0	1.0	2.0	1.5	10.0	6.5	9.0	7.5	11.5	9.0	8.5	7.0
6	1.0	1.0	2.0	1.5	11.0	6.5	9.5	7.0	10.5	8.0	8.0	7.0
7	1.0	1.0	2.0	1.5	11.0	6.5	9.5	6.5	10.5	9.0	8.0	6.5
8	1.0	1.0	2.5	1.5	8.0	6.0	10.0	6.5	10.5	8.0	8.0	7.0
9	1.0	1.0	2.5	2.0	9.0	5.0	11.0	7.5	10.0	8.0	8.0	6.0
10	1.0	1.0	4.0	2.0	9.0	5.5	11.0	7.5	10.0	8.0	7.5	6.0
11	1.5	1.0	4.0	2.0	9.0	6.0	10.5	8.0	9.0	8.5	7.5	6.5
12	2.0	1.5	4.5	2.5	9.0	5.0	10.5	8.0	9.0	8.0	7.5	6.5
13	2.0	1.5	4.5	2.5	8.5	5.5	10.0	7.5	9.0	8.0	7.5	6.5
14	2.0	1.5	6.0	2.5	8.5	5.5	9.0	6.5	9.0	7.0	7.5	6.0
15	2.0	2.0	6.5	3.0	9.0	5.5	7.0	6.0	9.5	7.5	6.5	6.0
16	2.0	2.0	5.5	3.5	8.0	5.5	8.5	6.5	9.5	7.5	6.5	6.0
17	2.5	1.5	5.0	3.0	7.0	5.0	9.5	6.5	8.5	7.0	6.5	6.0
18	2.5	1.5	5.0	3.0	7.0	5.0	9.0	7.0	9.0	6.5	6.5	5.5
19	2.5	1.5	5.0	3.5	8.0	5.5	9.0	7.5	9.5	6.5	6.0	5.5
20	2.5	1.5	7.0	4.0	8.0	6.0	9.0	7.0	9.5	7.5	5.5	5.0
21	2.5	2.0	7.5	4.0	9.5	5.5	9.0	6.5	8.5	7.0	5.5	4.0
22	2.5	1.5	7.5	4.0	10.5	6.5	7.5	6.5	8.5	7.5	5.0	4.5
23	2.5	1.5	7.5	4.5	10.0	6.5	8.0	6.5	8.5	6.5	4.5	3.5
24	2.5	2.0	7.0	4.5	9.5	6.5	8.5	6.5	8.5	7.0	4.5	4.0
25	2.5	2.0	6.5	4.5	7.0	5.5	8.5	7.0	8.5	6.0	5.0	4.5
26	2.0	2.0	6.5	5.0	6.5	5.5	9.0	7.0	8.5	6.5	---	---
27	2.0	1.5	7.0	4.0	8.5	6.0	9.0	7.0	8.5	6.5	---	---
28	2.0	1.5	7.0	5.0	9.5	6.0	9.0	6.5	8.5	7.0	---	---
29	2.0	1.5	7.5	5.0	10.5	6.5	10.0	6.5	8.5	6.5	---	---
30	2.0	1.5	7.5	5.5	10.0	7.0	10.5	7.5	7.5	6.5	---	---
31	---	---	7.5	5.0	---	---	10.5	7.5	7.5	6.5	---	---
MONTH	2.5	.5	7.5	1.5	11.0	5.0	11.0	6.0	12.0	6.0	9.0	3.5
YEAR	12.0											

BEST DOCUMENT AVAILABLE

15208000 TONSINA RIVER AT TONSINA

LOCATION.--Lat 61°39'41", long 145°11'02", in SW¼SW¼ sec.26, T.2 S., R.1 E., Hydrologic Unit 19050003, on right bank 0.2 mi (0.3 km) upstream from Richardson Highway crossing at Tonsina, 0.6 mi (1.0 km) upstream from Bernard Creek, and 0.8 mi (1.3 mi) upstream from Squirrel Creek.

DRAINAGE AREA.--420 mi² (1,090 km²), approximately.

PERIOD OF RECORD.--May 1950 to December 1954, January to September 1955 (fragmentary), October 1955 to current year.

REVISED RECORDS.--WDR AK-75-1: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 1,500 ft (460 m), from topographic map. Prior to Oct. 16, 1957, at site 800 ft (240 m) downstream at different datum. Oct. 17, 1957 to Apr. 18, 1967, June 9, 1973 to Apr. 17, 1974, nonrecording gage and Apr. 19, 1967 to June 8, 1973, water-stage recorder at site 0.2 mi (0.3 km) downstream at prior datum. Apr. 18, 1974 to May 30, 1975, nonrecording gage at present site and datum.

REMARKS.--Records good except those for Oct. 31 to May 15, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years (water years 1951-54, 1956-78), 836 ft³/s (23.68 m³/s), 27.03 in/yr (687 mm/yr), 605,700 acre-ft/yr (747 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,490 ft³/s (240 m³/s) June 17, 1962, gage height, 4.91 ft (1.497 m), from graph based on gage readings, site and datum then in use; maximum gage height, 7.00 ft (2.134 m) June 8, 1957, from graph based on gage readings, site and datum then in use; minimum daily discharge, about 35 ft³/s (0.99 m³/s) Mar. 11 to Apr. 20, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,510 ft³/s (71.1 m³/s) Aug. 6, gage height, 20.22 ft (6.163 m); minimum daily, about 100 ft³/s (2.8 m³/s) Mar. 20 to Apr. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	980	255	170	150	130	120	100	180	770	1470	2150	1070
2	900	250	170	150	130	120	100	200	800	1430	2240	1030
3	820	240	170	150	130	120	100	200	810	1410	2300	1030
4	780	230	170	150	130	110	100	220	880	1330	2350	1060
5	740	230	170	150	130	110	100	220	950	1540	2440	1080
6	710	220	170	150	130	110	100	240	1040	1740	2500	1110
7	660	220	170	150	130	110	100	240	1240	1860	2470	1140
8	610	210	170	150	130	110	100	240	1520	1880	2460	1140
9	570	200	170	150	130	110	100	260	1730	1890	2320	1110
10	550	200	170	150	130	110	100	260	1860	1940	2190	1080
11	520	200	170	150	130	110	100	260	1990	2040	2080	1050
12	500	200	170	150	130	110	100	280	2170	2150	1990	1020
13	480	200	170	150	130	110	100	280	2320	2230	1920	1040
14	480	200	160	140	130	110	100	280	2280	2230	1860	1090
15	490	200	160	140	120	110	100	300	2170	2190	1800	1050
16	480	190	160	140	120	110	100	305	2200	2070	1730	980
17	480	190	160	140	120	110	100	330	2110	1980	1680	910
18	460	190	160	140	120	110	100	305	1900	1900	1620	840
19	400	190	160	140	120	110	100	305	1730	1860	1590	790
20	390	190	160	140	120	100	100	305	1610	1900	1590	760
21	390	190	160	140	120	100	100	330	1530	1980	1650	690
22	380	190	160	140	120	100	110	360	1510	2000	1650	610
23	370	180	160	140	120	100	110	500	1650	2030	1610	560
24	350	180	160	140	120	100	120	540	1730	2020	1550	510
25	330	180	160	140	120	100	120	570	1720	1990	1480	470
26	330	180	160	140	120	100	130	640	1660	1960	1410	430
27	330	180	160	140	120	100	140	670	1570	1930	1350	400
28	315	180	160	140	120	100	140	670	1470	1920	1300	380
29	305	180	150	140	---	100	150	690	1440	1920	1250	370
30	295	170	150	130	---	100	160	710	1470	1960	1190	350
31	260	---	150	130	---	100	---	720	---	2030	1120	---
TOTAL	15655	6015	5060	4450	3500	3320	3280	11610	47830	58780	56840	25150
MEAN	505	201	163	144	125	107	109	375	1594	1896	1834	838
MAX	980	255	170	150	130	120	160	720	2320	2230	2500	1140
MIN	260	170	150	130	120	100	100	180	770	1330	1120	350
CFSM	1.20	.48	.39	.34	.30	.26	.26	.89	3.80	4.51	4.37	2.00
IN.	1.39	.53	.45	.39	.31	.29	.29	1.03	4.24	5.21	5.03	2.23
AC-FT	31050	11930	10040	8830	6940	6590	6510	23030	94870	116600	112700	49890

CAL YR 1977 TOTAL 426764 MEAN 1169 MAX 5000 MIN 150 CFSM 2.78 IN 37.80 AC-FT 846500
WTR YR 1978 TOTAL 241490 MEAN 662 MAX 2500 MIN 100 CFSM 1.58 IN 21.39 AC-FT 479000

NOTE.--No gage-height record Nov. 9 to May 15.

15212000 COPPER RIVER NEAR CHITINA

LOCATION.--Lat 61°27'56", long 144°27'21", in SW¼NE¼ sec.2, T.5 S., R.5 E., Hydrologic Unit 19050003, on right bank at head of Woods Canyon, 0.5 mi (0.8 km) downstream from Taral Creek and abandoned Indian village of Taral, 2.2 mi (3.5 km) upstream from Tenas Creek, and 3.5 mi (5.6 km) south of Chitina.

DRAINAGE AREA.--20,600 mi^2 (53,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1950, May to November 1952, October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (122 m), from topographic map. Prior to June 2, 1952, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 1.4 ft (0.43 m) higher.

REMARKS.--Records good except for the period of no gage-height record, Oct. 1 to May 25, which are poor. Streamflow augmented by glaciers, which cover 17 percent of the basin.

AVERAGE DISCHARGE.--23 years, 37,010 ft^3/s (1,048 m^3/s), 24.40 in/yr (620 mm/yr), 26,810,000 acre-ft/yr (33.1 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft^3/s (7,500 m^3/s) July 15, 1971, gage height, 29.94 ft (9.126 m), from rating curve extended above 170,000 ft^3/s (4,800 m^3/s); minimum daily, about 2,000 ft^3/s (57 m^3/s) Mar. 1-31, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since 1950, that of July 15, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172,000 ft^3/s (4,870 m^3/s) Aug. 4, gage height, 22.8 ft (6.95 m), minimum daily, about 6,000 ft^3/s (170 m^3/s) Mar. 25 to Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33000	12000	10000	9000	8000	7000	6000	10000	29000	65900	137000	75000
2	31500	11800	10000	9000	8000	7000	6000	10000	30500	64500	151000	72000
3	30000	11500	10000	9000	8000	7000	6000	10000	31000	64500	164000	72500
4	28500	11300	10000	9000	8000	7000	6000	11000	31500	65200	166000	73100
5	27000	11000	10000	9000	8000	7000	6000	11000	35100	72000	166000	74400
6	26000	10800	10000	9000	8000	7000	6000	11000	39900	80800	147000	75200
7	25000	10600	10000	9000	8000	7000	6000	11000	46300	87200	135000	77600
8	24000	10400	10000	9000	8000	7000	6000	12000	52600	89600	137000	75200
9	23000	10200	10000	9000	8000	7000	6000	12000	54000	93800	135000	71200
10	22000	10000	10000	9000	8000	7000	6000	12000	56100	105000	133000	66600
11	21000	10000	10000	9000	8000	7000	6000	12000	62400	117000	131000	63800
12	20000	10000	10000	9000	8000	7000	6000	12800	67300	126000	126000	60300
13	19000	10000	10000	9000	8000	7000	6000	13300	72000	137000	122000	61700
14	18000	10000	10000	9000	8000	7000	6000	14200	72000	122000	118000	61700
15	19000	10000	9000	9000	8000	7000	6000	15000	73600	114000	114000	56800
16	19500	10000	9000	9000	8000	7000	7000	16000	84000	106000	110000	51900
17	19000	10000	9000	9000	8000	7000	7000	17000	78400	103000	107000	47700
18	18000	10000	9000	9000	8000	7000	7000	18000	67300	104000	105000	45600
19	16000	10000	9000	8000	8000	7000	7000	19000	58900	105000	103000	40500
20	15500	10000	9000	8000	8000	7000	8000	20000	54000	115000	106000	36900
21	15200	10000	9000	8000	8000	7000	8000	21100	52600	123000	112000	32700
22	14800	10000	9000	8000	7000	7000	8000	22200	54000	125000	112000	31000
23	14600	10000	9000	8000	7000	7000	8000	23600	58200	127000	107000	29000
24	14200	10000	9000	8000	7000	7000	8000	25000	63100	128000	102000	27000
25	14000	10000	9000	8000	7000	6000	9000	26600	64500	121000	98000	24000
26	13700	10000	9000	8000	7000	6000	9000	28500	63800	117000	94000	23000
27	13400	10000	9000	8000	7000	6000	9000	30000	61700	114000	91000	21000
28	13200	10000	9000	8000	7000	6000	9000	30000	59600	114000	87000	20000
29	12800	10000	9000	8000	---	6000	10000	29500	58900	113000	84[illegible]	18000
30	12500	10000	9000	8000	---	6000	10000	29500	62400	117000	81000	17000
31	12300	---	9000	8000	---	6000	---	29000	---	126000	78000	---
TOTAL	605700	309600	293000	266000	217000	210000	214000	562300	1694700	3262500	3659000	1502400
MEAN	19540	10320	9452	8581	7750	6774	7133	18140	56490	105200	118000	50080
MAX	33000	12000	10000	9000	8000	7000	10000	30000	84000	137000	166000	77600
MIN	12300	10000	9000	8000	7000	6000	6000	10000	29000	64500	78000	17000
CFSM	.95	.50	.46	.42	.38	.33	.35	.88	2.74	5.11	5.73	2.43
IN.	1.09	.56	.53	.48	.39	.38	.39	1.02	3.06	5.89	6.61	2.71
AC-FT	1201000	614100	581200	527600	430400	416500	424500	1115000	3361000	6471000	7258000	2980000

CAL YR 1977 TOTAL 15969600 MEAN 43750 MAX 162000 MIN 9000 CFSM 2.12 IN 28.84 AC-FT 31680000
WTR YR 1978 TOTAL 12796200 MEAN 35060 MAX 166000 MIN 6000 CFSM 1.70 IN 23.11 AC-FT 25340000

15212000 COPPER RIVER NEAR CHITINA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-58, 1963-72, 1974-75, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAY										
26...	1030	651	53	--	160	--	6.6	--	--	--
26...	1031	--	253	--	160	--	6.8	--	--	--
26...	1032	--	453	--	160	--	6.8	--	--	--
26...	1033	--	523	--	160	--	6.8	--	--	--
26...	1034	--	573	--	160	--	7.1	--	--	--
26...	1035	--	623	--	160	--	7.5	--	--	--
JUL										
06...	1930	696	--	80000	140	7.6	10.0	560	K18	K15
06...	1931	--	416	--	155	--	--	--	--	--
06...	1932	--	366	--	150	--	--	--	--	--
06...	1933	--	176	--	140	--	--	--	--	--

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAY										
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	60	14	19	3.0	3.3	1.4	56	0	13	2.0
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
MAY										
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.1	4.5	75	74	.04	.01	.49	.50	.25	.25
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY									
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
JUL									
06...	.54	1.2	.01	3.7	3.7	110	2200	475000	60
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--

K NON-IDEAL COLONY COUNT

15212000 COPPER RIVER NEAR CHITINA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
JUL 06...	1930	7	3	4	300	100	200	0	0	60	60	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 06...	16	14	2	190	190	2	44000	44000	70	960	960	0

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL 06...	.3	.3	.0	0	0	0	0	0	0	130	130	0

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE	JUL 6,78
TIME	1930
TOTAL CELLS/ML	110
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	1.9
....GENUS	1.9

ORGANISM	CELLS /ML	PER-CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
....AMPHORA	22#	20
...FRAGILARIACEAE		
....SYNEDRA	22#	20
...GOMPHONEMATACEAE		
....GOMPHONEMA	44#	40
...NITZSCHIACEAE		
....NITZSCHIA	22#	20

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

15216000 POWER CREEK NEAR CORDOVA

LOCATION.--Lat 60°35'14", long 145°37'05", Hydrologic Unit 19050003, on right bank at old bridge site, 1 mi (1.6 km) upstream from Eyak Lake, and 5.5 mi (8.8 km) northeast of Cordova.

DRAINAGE AREA.--20.5 mi² (53.1 km²).

PERIOD OF RECORD.--July to November 1913 (fragmentary), August 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 33.5 ft (10.21 m) National Geodetic Vertical Datum of 1929 (river profile survey). July to November 1913, nonrecording gage 0.5 mi (0.8 km) upstream at different datum. August 1947 to March 1960, water-stage recorder on left bank at same datum.

REMARKS.--Records good except those for period of no gage-height record, Nov. 9 to Jan. 11, which are poor. Streamflow augmented by glaciers, which cover 27 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 246 ft³/s (6.967 m³/s), 162.96 in/yr (4,139 mm/yr), 178,200 acre-ft/yr (220 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 5,540 ft³/s (157 m³/s) Sept. 25, 1949, gage height, 7.65 ft (2.332 m), from rating curve extended above 1,450 ft³/s (41.1 m³/s); minimum recorded, 13 ft³/s (0.37 m³/s) Apr. 29, 1950, gage height, 1.50 ft (0.457 m), but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 15	1800	*2,050	58.1	*4.83	1.472	Sept.13	0800	1,950	55.2	4.77	1.454

Minimum discharge, about 25 ft³/s (0.71 m³/s) Dec. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	174	45	44	56	56	39	103	399	398	491	258
2	246	153	42	42	50	54	39	107	334	337	525	254
3	218	143	40	40	50	52	39	117	293	370	472	244
4	209	133	35	40	52	50	39	127	281	487	468	227
5	199	126	30	40	60	50	37	131	283	819	492	239
6	188	115	30	40	90	50	38	129	302	679	409	253
7	190	106	30	44	110	55	38	142	351	525	380	281
8	173	98	30	50	107	49	48	176	353	453	397	337
9	205	94	25	50	104	48	46	180	318	426	424	293
10	227	90	25	60	85	46	42	202	332	428	412	258
11	520	85	25	80	75	44	41	211	372	438	408	247
12	337	80	30	90	80	43	39	220	392	450	418	664
13	283	75	30	73	80	43	38	217	362	433	590	1350
14	350	75	35	65	70	43	38	215	325	385	484	567
15	1160	70	35	60	68	55	38	231	379	364	404	515
16	667	65	35	55	65	51	39	276	624	351	417	430
17	563	60	32	50	65	49	39	264	437	326	468	325
18	402	55	32	60	76	45	35	242	609	315	450	406
19	297	50	30	92	87	42	38	216	547	439	350	468
20	347	50	30	167	81	62	40	217	465	515	520	487
21	380	50	30	129	72	53	42	224	441	487	540	320
22	464	50	30	100	75	46	48	243	423	514	450	265
23	316	50	35	104	78	44	47	254	434	435	400	222
24	[illegible]71	50	35	270	87	42	51	329	392	445	350	199
25		55	40	161	77	41	56	311	424	405	350	193
26	20	55	45	113	69	41	80	267	654	365	330	177
27	219	60	45	93	64	39	80	225	472	354	310	167
28	287	54	47	80	61	40	107	261	394	342	300	166
29	326	52	50	72	---	41	108	284	366	344	290	185
30	249	50	48	66	---	47	99	281	382	399	280	162
31	204	---	45	62	---	41	---	361	---	443	270	---
TOTAL	10230	2423	1096	2492	2094	1462	1508	6743	12140	13472	12849	10159
MEAN	330	80.8	35.4	80.4	74.8	47.2	50.3	218	405	435	414	339
MAX	1160	174	50	270	110	62	108	361	654	819	590	1350
MIN	173	50	25	40	50	39	35	103	281	315	270	162
CFSM	16.1	3.94	1.73	3.92	3.65	2.30	2.45	10.6	19.8	21.2	20.2	16.5
IN.	18.56	4.40	1.99	4.52	3.80	2.65	2.74	12.24	22.03	24.45	23.32	18.43
AC-FT	20290	4810	2170	4940	4150	2900	2990	13370	24080	26720	25490	20150

CAL YR 1977 TOTAL 100294 MEAN 275 MAX 1830 MIN 25 CFSM 13.4 IN 181.99 AC-FT 198900
WTR YR 1978 TOTAL 76668 MEAN 210 MAX 1350 MIN 25 CFSM 10.2 IN 139.12 AC-FT 152100

15219000 WEST FORK OLSEN BAY CREEK NEAR CORDOVA

LOCATION.--Lat 60°45'41", long 146°10'20", in NW¼NE¼ sec.7, T.13 S., R.5 W., Hydrologic Unit 19050003, in Chugach National Forest, on left bank 600 ft (200 m) upstream from confluence with East Fork, and 21 mi (34 km) northwest of Cordova.

DRAINAGE AREA.--4.78 mi² (12.38 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1964 to current year.

REVISED RECORDS.--WSP 2136: 1965 (P). WDR AK-77-1: 1976.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Water-discharge records good except those for Nov. 16 to Mar. 7, which are poor.

AVERAGE DISCHARGE.--14 years, 32.2 ft³/s (0.912 m³/s), 91.48 in/yr (2,324 mm/yr), 23,330 acre-ft/yr (28.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) Sept. 12, 1972, gage height, 5.30 ft (1.615 m), from rating curve extended above 150 ft³/s (4.2 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 5.64 ft (1.719 m) May 4, 1972, backwater from ice; minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Mar. 5-21, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 491 ft³/s (13.9 m³/s) Sept. 13 (0730 hrs), gage height, 3.87 ft (1.180 m), only peak above base of 480 ft³/s (14 m³/s); minimum daily, about 3 ft³/s (0.08 m³/s) Dec. 2-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	4.0	7.8	6.0	10	10	27	66	33	18	9.6
2	18	18	3.0	7.6	5.0	11	11	37	57	30	18	9.0
3	16	16	3.0	7.4	5.0	10	11	57	52	30	16	8.6
4	17	15	3.0	7.6	7.0	10	10	67	58	40	16	8.4
5	17	14	3.0	7.6	10	10	11	45	50	98	23	8.6
6	16	13	3.0	7.4	15	11	11	37	52	84	20	9.6
7	16	13	3.0	8.0	33	12	11	35	55	51	16	13
8	15	12	4.0	9.0	22	11	15	41	58	36	15	16
9	18	12	4.0	10	18	10	14	38	45	32	15	12
10	21	12	5.0	10	14	10	13	47	45	30	15	11
11	85	12	6.0	12	12	9.6	13	63	52	30	14	11
12	45	11	8.0	12	12	9.4	12	62	48	30	14	85
13	33	11	9.0	14	14	9.2	14	56	47	30	23	244
14	58	11	9.0	12	13	9.6	16	52	56	27	28	54
15	105	10	8.2	11	12	15	17	61	69	25	21	44
16	110	9.0	7.4	8.0	12	13	16	63	120	26	18	50
17	85	7.0	7.4	7.0	11	13	18	44	63	23	19	30
18	56	6.0	7.0	9.0	19	12	25	36	64	21	16	26
19	33	5.0	6.8	20	20	15	26	35	78	45	14	34
20	57	5.0	6.8	40	18	16	28	36	65	57	23	41
21	61	5.0	6.7	34	14	13	34	52	52	45	24	26
22	77	4.0	6.7	21	16	12	36	57	45	64	17	21
23	52	4.0	6.7	23	19	11	33	56	46	43	14	19
24	46	4.0	7.0	85	24	10	25	63	45	40	12	18
25	32	5.0	7.4	32	18	10	25	54	39	38	12	16
26	26	5.0	8.0	20	14	10	46	52	61	36	11	15
27	26	6.0	9.0	16	12	9.8	40	44	46	28	10	13
28	43	5.0	9.0	14	11	9.4	30	45	36	23	9.6	13
29	63	4.0	9.4	12	---	12	26	52	33	20	9.6	12
30	40	4.0	8.6	10	---	11	26	50	33	19	9.4	11
31	28	---	8.2	8.0	---	10	---	68	---	19	9.6	---
TOTAL	1417	279.0	197.3	502.4	406.0	345.2	623	1510	1628	1153	500.2	886.6
MEAN	45.7	9.30	6.36	16.2	14.5	11.1	20.8	48.7	54.3	37.2	16.1	29.6
MAX	105	21	9.4	85	33	16	46	68	120	98	28	244
MIN	15	4.0	3.0	7.0	5.0	9.2	10	27	33	19	9.4	8.4
CFSM	9.56	1.95	1.33	3.39	3.03	2.32	4.35	10.2	11.4	7.78	3.37	6.19
IN.	11.03	2.17	1.54	3.91	3.16	2.69	4.85	11.75	12.67	8.97	3.89	6.90
AC-FT	2810	553	391	997	805	685	1240	3000	3230	2290	992	1760

CAL YR 1977 TOTAL 15346.7 MEAN 42.0 MAX 233 MIN 3.0 CFSM 8.79 IN 119.41 AC-FT 30440
WTR YR 1978 TOTAL 9447.7 MEAN 25.9 MAX 244 MIN 3.0 CFSM 5.42 IN 73.51 AC-FT 18740

BEST DOCUMENT AVAILABLE

15219000 WEST FORK OLSEN BAY CREEK NEAR CORDOVA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 1, 1964.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 9.5°C Aug. 2, 1969 and Aug. 20, 21, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 9.0°C Aug. 2, 23, 24; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
05...	1500	18	<25	6.2	6.0	--	--	763	10.6	--	--
DEC											
01...	1255	3.8	32	5.3	.0	<5	<1.0	761	--	--	--
FEB											
02...	1345	5.3	29	5.8	.0	<5	<1.0	759	13.7	13	6
APR											
18...	1700	24	26	5.5	3.0	5	<1.0	766	13.6	9	4
MAY											
26...	0900	49	20	5.6	3.5	5	<1.0	758	12.6	--	--
JUN											
26...	1030	61	16	5.4	5.5	5	<1.0	--	12.6	9	2
JUL											
25...	1900	34	20	5.4	7.0	5	<1.0	--	11.8	6	2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT											
05...	--	.2	--	--	8	0	7.8	--	--	--	--
DEC											
01...	--	--	--	--	10	--	--	--	--	--	--
FEB											
02...	4.4	.4	.7	.2	8	0	3.8	1.2	--	--	--
APR											
18...	3.1	.2	.6	.1	6	0	3.5	1.4	.0	3.3	17
MAY											
26...	--	.1	.8	.1	4	0	2.2	1.5	--	--	--
JUN											
26...	3.5	.1	.8	.1	8	0	3.1	.9	--	--	--
JUL											
25...	2.3	.1	1.0	.2	5	0	3.1	1.1	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
05...	.09	--	.00	--	.03	--	.03	--	.12	.00
DEC										
01...	.21	--	.06	--	.01	--	.07	--	.28	.00
FEB										
02...	--	.31	--	.04	--	.01	--	.05	--	--
APR										
18...	--	.48	--	.00	--	1.5	--	1.5	--	--
MAY										
26...	--	.15	--	.00	--	.16	--	.16	--	--
JUN										
26...	--	.10	--	.01	--	.12	--	.13	--	--
JUL										
25...	--	.11	--	.01	--	.17	--	.18	--	--

15219000 WEST FORK OLSEN BAY CREEK NEAR CORDOVA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	TANNIN AND LIGNIN (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
05...	--	<10	0	0	.0	10	.7	.1	1	.05
DEC										
01...	--	--	--	--	--	--	.5	--	1	.01
FEB										
02...	.01	--	--	--	--	--	--	--	1	.01
APR										
18...	.02	--	--	--	--	--	--	--	1	.06
MAY										
26...	.00	--	--	--	--	--	--	--	1	.13
JUN										
26...	.00	--	--	--	--	--	--	--	2	.33
JUL										
25...	.00	--	--	--	--	--	--	--	<1	<.09

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.0	5.5	4.0	3.5	.0	.0	.0	.0	.0	.0	.5	.0
2	6.0	5.5	3.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0
3	6.0	6.0	3.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
4	6.0	6.0	3.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
5	6.0	6.0	3.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
6	6.0	6.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
7	6.9	6.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
8	6.0	6.0	1.5	1.0	.0	.0	.0	.0	.5	.0	.5	.0
9	6.0	6.0	1.0	.5	.5	.0	.0	.0	.5	.5	.5	.5
10	6.0	6.0	.5	.5	.5	.5	.0	.0	.5	.5	1.0	.5
11	6.0	6.0	1.0	.5	.5	.5	.0	.0	.5	.5	1.0	1.0
12	6.0	6.0	1.0	1.0	.5	.5	.5	.0	1.0	.5	1.5	1.0
13	6.0	6.0	1.0	1.0	.5	.5	.5	.5	1.0	1.0	1.5	1.5
14	6.0	6.0	1.0	1.0	.5	.5	.5	.5	1.0	1.0	1.5	1.5
15	6.0	6.0	1.0	1.0	.5	.5	.5	.5	1.5	1.0	1.5	1.5
16	6.0	6.0	1.0	.5	.5	.5	.5	.5	1.5	1.5	1.5	1.5
17	6.0	5.5	.5	.0	.5	.5	.5	.5	1.5	1.5	1.5	1.5
18	5.5	5.0	.5	.0	.5	.5	.5	.5	1.5	1.5	1.5	1.5
19	5.0	4.5	.5	.0	.5	.5	.5	.5	1.5	1.5	1.5	1.5
20	4.5	4.0	.5	.0	.5	.5	1.0	.5	1.5	1.0	1.5	1.5
21	4.5	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
22	4.5	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
23	4.0	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
24	4.0	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
25	4.0	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
26	4.0	4.0	.5	.0	.5	.5	1.0	1.0	1.0	1.0	1.5	1.5
27	4.0	4.0	.5	.0	.5	.5	1.0	.5	1.0	1.0	1.5	1.5
28	4.0	4.0	.5	.0	.5	.5	.5	.5	1.0	.5	1.5	1.5
29	4.0	4.0	.5	.0	.5	.0	.5	.5	---	---	2.0	1.5
30	4.0	4.0	.0	.0	.0	.0	.5	.0	---	---	2.0	2.0
31	4.0	4.0	---	---	.0	.0	.0	.0	---	---	2.0	2.0
MONTH	6.0	4.0	4.0	.0	.5	.0	1.0	.0	1.5	.0	2.0	.0

BEST DOCUMENT AVAILABLE

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.0	1.5	4.0	3.5	3.5	3.5	6.0	5.5	8.5	7.0	8.0	7.0
2	1.5	1.5	4.5	3.5	4.0	3.5	6.0	5.5	9.0	7.0	8.5	7.0
3	2.0	1.5	4.0	3.5	4.0	3.5	6.0	6.0	8.5	8.0	8.0	8.0
4	2.0	2.0	4.0	4.0	5.0	4.0	6.0	6.0	8.0	8.0	8.5	8.0
5	2.0	1.5	4.5	4.0	5.0	4.0	6.5	6.0	8.0	8.0	8.0	8.0
6	2.0	2.0	4.5	4.0	5.5	4.0	6.5	6.0	8.0	8.0	8.5	8.0
7	2.0	2.0	4.0	3.5	5.5	4.5	6.5	5.5	8.0	8.0	8.5	8.5
8	2.0	2.0	3.5	3.5	5.0	4.5	6.5	6.0	8.0	8.0	8.5	8.0
9	2.0	1.5	3.5	3.5	5.0	4.5	8.0	6.0	8.0	8.0	8.5	8.0
10	2.0	1.5	4.5	3.5	5.5	4.5	8.0	6.5	8.5	8.0	8.5	8.5
11	2.0	2.0	4.5	3.0	6.0	4.5	7.0	6.5	8.5	8.5	8.5	8.5
12	2.0	1.5	4.0	3.5	5.5	4.5	6.5	6.5	8.5	8.5	8.5	8.0
13	2.0	1.5	3.5	3.5	5.0	5.0	6.5	6.5	8.5	8.0	8.5	7.0
14	2.0	2.0	4.5	3.0	5.0	5.0	7.0	6.5	8.5	8.0	7.0	7.0
15	3.0	2.0	4.0	3.0	5.0	5.0	7.0	6.5	8.5	8.0	7.0	7.0
16	3.0	2.0	3.5	3.0	5.0	4.5	6.5	6.5	8.0	8.0	8.0	7.0
17	3.0	2.0	3.0	3.0	4.5	4.5	6.5	6.5	8.5	8.0	7.0	6.5
18	3.0	2.0	3.5	3.0	5.0	4.5	7.0	6.5	8.5	7.0	7.0	7.0
19	3.5	2.0	4.0	3.0	5.0	4.5	7.0	6.5	8.5	8.0	7.0	6.5
20	3.5	2.0	4.5	3.0	6.0	4.5	7.0	6.5	8.5	8.0	6.5	6.5
21	3.5	3.0	4.5	3.0	6.0	4.5	6.5	6.5	8.5	8.0	6.5	6.0
22	3.5	3.0	4.5	3.5	5.5	5.0	7.0	6.5	8.5	8.0	6.0	5.5
23	3.5	3.0	3.5	3.5	5.0	5.0	8.0	6.5	9.0	8.0	6.0	5.5
24	3.0	3.0	3.5	3.5	5.0	5.0	7.0	7.0	9.0	8.0	6.5	6.0
25	3.5	3.0	4.0	3.5	5.0	5.0	7.0	7.0	8.5	8.0	6.5	6.5
26	3.5	3.0	4.0	3.5	5.5	5.0	7.0	7.0	8.5	7.0	6.5	6.0
27	3.0	3.0	4.5	3.0	5.5	5.5	7.0	6.5	8.5	7.0	6.0	5.5
28	3.5	3.0	4.0	4.0	6.5	5.0	7.0	6.5	8.5	8.0	6.0	6.0
29	4.0	4.0	4.0	3.5	7.0	5.5	8.0	6.5	8.5	8.0	6.5	6.0
30	4.0	3.5	4.0	3.5	6.0	6.0	8.5	6.5	8.0	8.0	6.0	5.5
31	---	---	4.0	3.5	---	---	8.5	7.0	8.0	8.0	---	---
MONTH	4.0	1.5	4.5	3.0	7.0	3.5	8.5	5.5	9.0	7.0	8.5	5.5
YEAR	9.0	.0										

15236900 WOLVERINE CREEK NEAR LAWING

LOCATION.--Lat 60°22'14", long 148°53'48", in NE¼ sec.10, T.3 N., R.3 E., Kenai Peninsula Borough, Hydrologic Unit 19050003, on left bank about 0.1 mi (0.2 km) downstream from terminus of Wolverine Glacier, 2.0 mi (3.2 km) upstream from mouth, and 16 mi (26 km) east of Lawing.

DRAINAGE AREA.--9.51 mi^2 (24.63 km^2).

PERIOD OF RECORD.--October 1966 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (360 m), from topographic map.

REMARKS.--Records poor. Estimated for period of no gage-height record, Oct. 26 to June 4. Large fluctuations from ice melt and alternate damming and storage release during the melt season. Streamflow modified by Wolverine Glacier, which covers 6.8 mi^2 (17.5 km^2), more than 70 percent of the drainage basin. A recording air temperature and precipitation gage at 3,250 ft (990 m) altitude, a storage precipitation gage at the stream gaging site, plus three snow and ice balance measurement sites are located in the basin. Combined snow, ice and water balances of the basin are published in other reports of the Geological Survey.

AVERAGE DISCHARGE.--12 years, 86.5 ft^3/s (2.450 m^3/s), 123.52 in/yr (3,137 mm/yr), 62,670 acre-ft/yr (77.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,280 ft^3/s (36.2 m^3/s) Sept. 12, 1978, gage height, 5.97 ft (1.820 m), from rating curve extended above 530 ft^3/s (15 m^3/s); maximum gage height, 14.7 ft (4.48 m), from floodmarks, about June 9, 1971, flow over dense snow; minimum daily discharge, 0.3 ft^3/s (0.008 m^3/s) Apr. 1 to May 3, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft^3/s (16 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 9	1000	568	16.1	4.62	1.408	Sept.12	0700	*1,280	36.2	*5.97	1.820
Aug. 30	1730	730	20.7	5.00	1.524						

Minimum daily discharge, 1.0 ft^3/s (0.03 m^3/s) Jan. 16 to Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	10	4.0	2.0	1.0	1.0	1.0	2.0	25	117	356	424
2	57	10	4.0	2.0	1.0	1.0	1.0	2.0	30	143	377	380
3	58	10	4.0	2.0	1.0	1.0	1.0	3.0	35	227	356	296
4	54	10	4.0	2.0	1.0	1.0	1.0	3.0	40	275	332	207
5	44	9.0	3.0	2.0	1.0	1.0	1.0	2.0	51	359	285	246
6	53	9.0	3.0	2.0	1.0	1.0	1.0	2.0	79	278	353	236
7	101	8.0	3.0	2.0	1.0	1.0	1.0	2.0	118	241	326	190
8	54	8.0	3.0	2.0	1.0	1.0	1.0	2.0	101	232	374	211
9	109	7.0	3.0	2.0	1.0	1.0	1.0	2.0	100	196	512	347
10	280	7.0	3.0	2.0	1.0	1.0	1.0	2.0	100	258	480	248
11	209	7.0	3.0	2.0	1.0	1.0	1.0	2.0	118	253	452	296
12	96	6.0	3.0	2.0	1.0	1.0	1.0	3.0	107	288	401	957
13	56	6.0	3.0	2.0	1.0	1.0	1.0	3.0	93	260	371	775
14	57	6.0	3.0	2.0	1.0	1.0	1.0	5.0	104	241	299	740
15	83	6.0	3.0	2.0	1.0	1.0	1.0	4.0	123	207	308	480
16	54	6.0	3.0	1.0	1.0	1.0	1.0	3.0	103	188	290	305
17	37	6.0	3.0	1.0	1.0	1.0	1.0	3.0	79	188	341	243
18	30	5.0	3.0	1.0	1.0	1.0	1.0	3.0	81	225	329	278
19	30	5.0	3.0	1.0	1.0	1.0	1.0	4.0	87	308	270	184
20	25	5.0	3.0	1.0	1.0	1.0	1.0	5.0	104	253	290	159
21	30	5.0	2.0	1.0	1.0	1.0	1.0	6.0	110	255	305	144
22	38	5.0	2.0	1.0	1.0	1.0	1.0	6.0	107	241	332	118
23	26	5.0	2.0	1.0	1.0	1.0	1.0	7.0	109	234	290	91
24	20	4.0	2.0	1.0	1.0	1.0	1.0	8.0	109	265	251	77
25	16	4.0	2.0	1.0	1.0	1.0	1.0	9.0	120	278	227	79
26	15	4.0	2.0	1.0	1.0	1.0	1.0	10	125	236	205	79
27	15	4.0	2.0	1.0	1.0	1.0	1.0	15	107	234	190	85
28	15	4.0	2.0	1.0	1.0	1.0	1.0	20	113	236	170	81
29	15	4.0	2.0	1.0	---	1.0	2.0	20	126	255	225	80
30	10	4.0	2.0	1.0	---	1.0	2.0	20	118	288	532	80
31	10	---	2.0	1.0	---	1.0	---	20	---	332	492	---
TOTAL	1756	189.0	86.0	46.0	28.0	31.0	32.0	198.0	2822	7591	10321	8116
MEAN	56.6	6.30	2.77	1.48	1.00	1.00	1.07	6.39	94.1	245	333	271
MAX	280	10	4.0	2.0	1.0	1.0	2.0	20	126	359	532	957
MIN	10	4.0	2.0	1.0	1.0	1.0	1.0	2.0	25	117	170	77
CFSM	5.95	.66	.29	.16	.11	.11	.11	.67	9.90	25.8	35.0	28.5
IN.	6.87	.74	.34	.18	.11	.12	.13	.77	11.04	29.69	40.37	31.74
AC-FT	3480	375	171	91	56	61	63	393	5600	15060	20470	16100

CAL YR 1977 TOTAL 36380.0 MEAN 99.7 MAX 726 MIN 2.0 CFSM 10.5 IN 142.29 AC-FT 72160
WTR YR 1978 TOTAL 31216.0 MEAN 85.5 MAX 957 MIN 1.0 CFSM 8.99 IN 122.09 AC-FT 61920

15238600 SPRUCE CREEK NEAR SEWARD

LOCATION.--Lat 60°04'10", long 149°27'08", Kenai Peninsula Borough, Hydrologic Unit 19050003, on left bank 0.7 mi (1.1 km) upstream from Resurrection Bay and 2.4 mi (3.9 km) south of Seward.

DRAINAGE AREA.--9.26 mi² (23.98 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1967 to current year.

REVISED RECORDS.--WDR AK-76-1: 1966-67 (M), 1970(M), 1972(M). WDR AK-77-1: 1969 (M).

GAGE.--Water-stage recorder. Altitude of gage is 75 ft (23 m), from topographic map.

REMARKS.--Records good except those for Nov. 5 to Apr. 16, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 74.6 ft³/s (2.113 m³/s), 109.40 in/yr (2,779 mm/yr), 54,050 acre-ft/yr (66.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) Sept. 20, 1976, gage height, 9.49 ft (2.893 m), from rating curve extended above 1,200 ft³/s (34 m³/s) on basis of slope-area measurement of peak flow; no flow several months of most winters.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 21, 1966, reached a stage of 10.1 ft (3.08 m), from floodmarks, discharge, 3,090 ft³/s (87.5 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 11	0300	728	20.6	6.52	1.987	Sept.13	0100	*1,490	42.2	*7.59	2.313

Minimum daily discharge, about 3 ft³/s (0.08 m³/s) Dec. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	22	8.0	5.0	5.0	7.0	5.2	20	93	143	186	76
2	49	20	8.0	4.5	4.5	7.0	5.2	24	79	140	218	70
3	44	20	7.0	4.5	4.5	6.0	5.2	30	86	154	163	65
4	42	20	7.0	4.5	4.5	6.0	5.2	31	97	203	145	61
5	40	18	6.0	4.5	4.5	6.0	5.2	32	98	325	129	114
6	57	17	6.0	4.5	4.5	6.0	5.4	30	106	242	129	102
7	76	16	5.0	5.0	4.5	6.0	5.4	30	143	196	136	86
8	55	15	5.0	6.0	4.5	6.0	5.4	36	154	178	116	73
9	441	14	4.0	7.0	5.0	5.4	5.4	36	145	163	148	67
10	355	13	3.0	8.0	5.0	5.2	6.0	37	160	186	136	60
11	499	13	3.0	7.0	5.0	5.0	5.6	41	175	226	116	60
12	226	13	3.0	6.0	5.0	5.0	5.6	42	178	234	241	284
13	124	13	4.0	5.0	6.0	5.0	5.6	43	160	178	230	711
14	95	12	4.0	5.0	10	6.0	5.6	53	206	145	129	274
15	97	12	5.0	4.5	8.0	8.0	5.8	55	238	148	116	151
16	84	12	5.0	4.5	7.0	7.0	5.8	60	214	148	122	114
17	70	12	4.0	5.0	7.0	6.5	5.9	47	172	129	131	88
18	54	12	4.0	6.0	9.0	6.0	6.8	42	242	124	127	106
19	47	12	5.0	8.0	13	6.0	7.7	43	203	163	106	93
20	44	12	6.0	9.0	10	5.5	9.2	54	192	166	127	79
21	48	12	6.0	7.0	8.0	5.5	12	74	206	154	118	64
22	57	12	6.0	6.0	8.0	5.5	13	81	214	157	124	57
23	52	11	6.0	8.0	11	5.5	14	91	200	148	120	52
24	65	11	7.0	12	13	5.0	14	148	186	154	98	48
25	47	11	7.0	9.0	15	5.0	13	102	166	145	86	44
26	38	10	7.0	7.0	10	4.5	15	88	172	140	71	41
27	42	10	6.0	6.0	8.0	4.5	18	79	166	140	64	38
28	31	10	6.0	5.5	8.0	4.5	17	74	157	145	60	36
29	30	9.0	6.0	5.5	---	5.0	16	71	166	138	61	32
30	28	9.0	5.0	5.5	---	5.5	18	73	160	143	86	30
31	26	---	5.0	5.0	---	5.5	---	98	---	166	95	---
TOTAL	3020	403.0	169.0	190.0	207.5	176.6	267.2	1765	4934	5221	3934	3176
MEAN	97.4	13.4	5.45	6.13	7.41	5.70	8.91	56.9	164	168	127	106
MAX	499	22	8.0	12	15	8.0	18	148	242	325	241	711
MIN	26	9.0	3.0	4.5	4.5	4.5	5.2	20	79	124	60	30
CFSM	10.5	1.45	.59	.66	.80	.62	.96	6.15	17.7	18.1	13.7	11.4
IN.	12.13	1.62	.68	.76	.83	.71	1.07	7.09	19.82	20.97	15.80	12.76
AC-FT	5990	799	335	377	412	350	530	3500	9790	10360	7800	6300

CAL YR 1977 TOTAL 41540.0 MEAN 114 MAX 973 MIN 3.0 CFSM 12.3 IN 166.86 AC-FT 82390
WTR YR 1978 TOTAL 23463.3 MEAN 64.3 MAX 711 MIN 3.0 CFSM 6.94 IN 94.25 AC-FT 46540

NOTE.--No gage-height record Nov. 9 to Mar. 27.

15238600 SPRUCE CREEK NEAR SEWARD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-72, 1974, 1976, and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
13...	1640	484	33	5.5

15238820 BARBARA CREEK NEAR SELDOVIA

LOCATION.--Lat 59°28'50", long 151°38'42", in SW¼ sec.15, T.8 S., R.14 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, on left bank 0.5 mi (0.8 km) upstream from mouth and 3.7 mi (6.0 km) northeast of Seldovia.

DRAINAGE AREA.--20.7 mi^2 (53.6 mi^2).

PERIOD OF RECORD.--June 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Nov. 22 to June 7, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 96.4 ft^3/s (2.730 m^3/s), 63.18 in/yr (1,605 mm/yr), 69,842 acre-ft/yr (86.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 974 ft^3/s (27.6 m^3/s) May 18, 1977, gage height, 4.53 ft (1.381 m) from rating curve extended above 370 ft^3/s (10.5 m^3/s); minimum daily, about 16 ft^3/s (0.45 m^3/s) Feb. 27 to Apr. 3, 1973 and Mar. 18 to Apr. 15, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 636 ft^3/s (18.0 m^3/s) Oct. 11, gage height, 4.01 ft (1.222 m); from rating curve extended above 370 ft^3/s (10.5 m^3/s); minimum daily, about 18 ft^3/s (0.51 m^3/s) Mar. 17 to Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	85	32	22	22	22	18	40	300	169	82	41
2	48	79	30	22	22	22	18	44	290	163	82	41
3	47	76	28	22	22	22	18	50	300	176	78	42
4	46	72	27	22	22	21	18	50	320	190	74	42
5	46	69	24	22	22	21	19	52	320	207	70	45
6	61	65	22	21	22	20	19	50	310	197	66	42
7	139	62	21	21	22	20	19	50	310	180	64	43
8	127	59	21	21	22	20	19	52	308	163	63	43
9	452	57	20	22	22	20	19	56	296	158	62	43
10	526	56	20	22	22	19	19	70	268	154	60	43
11	562	54	20	22	23	19	20	90	259	167	57	44
12	409	54	20	22	23	19	20	110	286	148	62	62
13	317	50	20	22	23	19	20	130	296	144	58	89
14	270	50	19	23	24	19	20	140	390	127	55	122
15	235	48	19	23	24	19	21	150	430	115	53	107
16	199	46	19	23	25	19	21	170	352	112	54	80
17	170	45	19	24	26	18	22	150	286	115	52	80
18	147	43	20	24	26	18	23	150	271	112	50	92
19	133	42	20	24	28	18	24	160	286	127	50	92
20	126	41	20	24	28	18	26	180	265	122	48	88
21	125	42	20	24	24	18	27	200	259	116	46	88
22	124	40	21	23	24	18	27	210	390	107	46	83
23	115	39	22	23	27	18	29	250	338	98	44	80
24	110	38	22	23	30	18	31	350	283	99	43	75
25	106	38	22	23	30	18	33	300	271	96	42	70
26	124	37	23	23	26	18	35	290	242	94	42	68
27	119	37	23	23	25	18	37	280	220	89	41	65
28	113	36	23	23	23	18	36	270	200	102	41	61
29	106	35	23	23	---	18	36	270	190	91	40	59
30	99	34	23	22	---	18	39	280	185	86	41	57
31	91	---	23	22	---	18	---	310	---	83	41	---
TOTAL	5340	1529	686	700	679	591	733	4954	8721	4107	1707	1987
MEAN	172	51.0	22.1	22.6	24.3	19.1	24.4	160	291	132	55.1	66.2
MAX	562	85	32	24	30	22	39	350	430	207	82	122
MIN	46	34	19	21	22	18	18	40	185	83	40	41
CFSM	8.31	2.46	1.07	1.09	1.17	.92	1.18	7.73	14.1	6.38	2.66	3.20
IN.	9.60	2.75	1.23	1.26	1.22	1.06	1.32	8.90	15.67	7.38	3.07	3.57
AC-FT	10590	3030	1360	1390	1350	1170	1450	9830	17300	8150	3390	3940

CAL YR 1977 TOTAL 49416 MEAN 135 MAX 789 MIN 19 CFSM 6.52 IN 88.80 AC-FT 98020
WTR YR 1978 TOTAL 31734 MEAN 86.9 MAX 562 MIN 18 CFSM 4.20 IN 57.03 AC-FT 62940

15239000 BRADLEY RIVER NEAR HOMER

LOCATION.--Lat 59°45'24", long 150°51'02", in NE¼SW¼ sec.8, T.5 S., R.9 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, on right bank about 800 ft (200 m) downstream from Bradley Lake outlet, 3.5 mi (5.6 km) upstream from unnamed tributary, and 26 mi (42 km) northeast of Homer.

DRAINAGE AREA.--54.0 mi^2 (139.9 km^2).

PERIOD OF RECORD.--July to August 1955, October 1957 to current year.

REVISED RECORDS.--WSP 2136: 1960 (M), 1965. AK-77-1: 1958, 1961, 1963 (M), 1966, 1967, 1970, 1972, 1974, 1976.

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft (320 m), from topographic map. July 13-22, 1955, nonrecording gage at site 1 mi (1.6 km) upstream and July 23 to Aug. 5, 1955, at site 3 mi (4.8 km) upstream at different datums.

REMARKS.--Records good except those for period of no gage-height record, Oct. 25 to Apr. 24, which are poor. Streamflow augmented by glaciers, which cover 36 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 418 ft^3/s (11.84 m^3/s), 105.12 in/yr (2,670 mm/yr), 302,800 acre-ft/yr (373 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,480 ft^3/s (155 m^3/s) Oct. 14, 1969, gage height, 9.13 ft (2.783 m); minimum daily, about 16 ft^3/s (0.45 m^3/s) Mar. 26 to Apr. 25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,120 ft^3/s (88.4 m^3/s) Sept. 14, gage height, 7.09 ft (2.161 m); minimum daily, about 30 ft^3/s (0.850 m^3/s) Dec. 21-Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	922	110	40	30	40	40	48	65	448	781	1040	1140
2	1410	100	40	30	40	40	48	66	427	770	1130	1060
3	1650	100	40	30	40	40	48	66	415	805	1180	964
4	1240	90	40	30	40	40	48	67	414	976	1180	912
5	901	90	40	30	40	40	48	68	430	1210	1170	1000
6	672	90	40	30	40	40	50	70	451	1390	1110	1080
7	534	90	40	30	40	40	50	72	525	1430	1130	1020
8	439	80	40	30	40	40	50	78	623	1380	1120	878
9	359	80	40	30	40	40	50	91	683	1250	1220	738
10	311	80	40	30	40	40	52	104	708	1160	1450	625
11	274	80	40	30	40	40	52	115	683	1170	1470	561
12	255	80	40	30	40	40	52	124	707	1210	1530	917
13	244	70	40	30	40	40	52	230	751	1190	1650	2360
14	243	70	40	30	40	40	52	300	880	1090	1500	2990
15	236	70	40	30	40	40	56	331	950	999	1290	2330
16	235	70	40	30	40	42	56	386	959	930	1230	1660
17	237	70	40	30	40	42	56	396	899	881	1250	1240
18	232	60	40	30	40	42	56	383	842	915	1300	1130
19	226	60	40	30	40	42	60	371	813	1030	1250	1020
20	219	60	40	40	40	42	60	368	777	1180	1220	897
21	212	50	30	40	40	42	60	389	773	1210	1240	752
22	202	50	30	40	40	46	60	404	896	1210	1240	622
23	193	50	30	40	40	46	62	445	1040	1160	1230	534
24	184	50	30	40	40	46	62	540	1040	1100	1130	475
25	170	50	30	40	40	46	64	589	1020	1070	1040	425
26	160	50	30	40	40	46	64	561	989	1020	941	362
27	150	50	30	40	40	46	64	511	940	983	852	320
28	140	50	30	40	40	46	64	482	890	1010	781	280
29	130	50	30	40	---	46	65	453	847	1010	745	260
30	130	50	30	40	---	46	65	441	816	1000	922	230
31	120	---	30	40	---	46	---	446	---	1000	1110	---
TOTAL	12630	2100	1130	1050	1120	1312	1674	9010	22636	33520	36451	28782
MEAN	407	70.0	36.5	33.9	40.0	42.3	55.8	291	755	1081	1182	959
MAX	1650	110	40	40	40	46	65	589	1040	1430	1650	2990
MIN	120	50	30	30	40	40	48	65	414	770	745	230
CFSM	7.54	1.30	.68	.63	.74	.78	1.03	5.39	14.0	20.0	21.9	17.8
IN.	8.70	1.45	.78	.72	.77	.90	1.15	6.21	15.59	23.09	25.25	19.83
AC-FT	25050	4170	2240	2080	2220	2600	3320	17870	44900	66490	72700	57090

CAL YR 1977 TOTAL 205371 MEAN 563 MAX 4970 MIN 30 CFSM 10.4 IN 141.48 AC-FT 407400
WTR YR 1978 TOTAL 151615 MEAN 415 MAX 2990 MIN 30 CFSM 7.69 IN 104.44 AC-FT 300700

15241600 NINILCHIK RIVER AT NINILCHIK

LOCATION.--Lat 60°02'56", long 151°39'48", in NE¼ sec.34, T.1 S., R.14 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, on downstream side of bridge at Ninilchik and 0.9 mi (1.4 km) upstream from mouth.

DRAINAGE AREA.--131 mi^2 (339 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 30 ft (9 m), from topographic map. Prior to Oct. 1, 1965, at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for Nov. 7 to Apr. 29, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 105 ft^3/s (2.974 m^3/s), 10.88 in/yr (276 mm/yr), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,240 ft^3/s (35.1 m^3/s) Apr. 24, 1974, gage height, 6.04 ft (1.841 m), from graph based on gage readings; maximum gage height observed, 8.69 ft (2.649 m) Apr. 14, 1969, backwater from ice; minimum discharge observed, 30 ft^3/s (0.85 m^3/s) July 20, 1966, gage height, 3.64 ft (1.109 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, about 450 ft^3/s (12.7 m^3/s) Apr. 15 and 16; minimum observed, 44 ft^3/s (1.2 m^3/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	111	75	55	55	65	90	264	101	67	57	49
2	138	89	75	55	55	65	100	264	97	68	53	47
3	131	99	75	55	55	65	100	252	103	75	51	46
4	119	125	75	55	55	65	100	249	91	77	50	47
5	109	123	75	55	55	65	125	240	87	73	51	129
6	103	117	75	55	55	65	125	210	78	70	51	87
7	105	110	75	55	55	65	150	187	75	68	53	80
8	153	110	75	55	55	65	150	153	70	65	53	71
9	141	110	70	55	55	65	175	150	71	60	54	107
10	133	100	70	55	60	65	200	113	68	59	54	78
11	123	100	70	55	60	65	250	121	63	57	54	77
12	113	100	70	55	60	65	300	121	59	62	54	73
13	103	95	70	55	60	70	350	115	56	65	56	84
14	113	95	70	55	60	70	400	111	103	60	62	87
15	133	95	70	55	60	70	450	103	121	57	59	75
16	136	90	65	55	60	75	450	91	115	57	57	71
17	133	90	65	55	60	75	400	97	107	54	60	67
18	123	90	65	55	60	75	400	87	109	56	56	63
19	105	90	65	55	60	75	400	84	129	67	53	70
20	103	90	65	55	60	75	400	84	113	95	56	80
21	101	85	65	55	60	75	350	84	91	121	54	129
22	99	85	65	55	60	80	350	93	93	125	51	131
23	101	85	65	55	60	80	350	103	89	105	47	99
24	107	85	65	55	60	80	330	113	78	111	46	87
25	105	80	60	55	60	80	330	103	71	184	46	82
26	105	80	60	55	60	80	320	107	103	136	46	68
27	103	80	60	55	60	85	310	103	87	93	44	65
28	109	80	60	55	60	85	310	99	75	82	46	63
29	107	80	60	55	---	85	300	115	67	77	47	60
30	101	80	60	55	---	85	300	113	65	71	50	59
31	105	---	60	55	---	90	---	109	---	65	49	---
TOTAL	3617	2849	2095	1705	1635	2270	8365	4238	2635	2482	1620	2331
MEAN	117	95.0	67.6	55.0	58.4	73.2	279	137	87.8	80.1	52.3	77.7
MAX	157	125	75	55	60	90	450	264	129	184	62	131
MIN	99	80	60	55	55	65	90	84	56	54	44	46
CFSM	.89	.73	.52	.42	.45	.56	2.13	1.05	.67	.61	.40	.59
IN.	1.03	.81	.59	.48	.46	.64	2.38	1.20	.75	.70	.46	.66
AC-FT	7170	5650	4160	3380	3240	4500	16590	8410	5230	4920	3210	4620

CAL YR 1977 TOTAL 47591 MEAN 130 MAX 1080 MIN 54 CFSM .99 IN 13.51 AC-FT 94400
WTR YR 1978 TOTAL 35842 MEAN 98.2 MAX 450 MIN 44 CFSM .75 IN 10.18 AC-FT 71090

NOTE.--No gage-height record Nov. 23 to Apr. 15.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1955-58, 1963-65, 1967-68, 1975, and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
AUG 15...	1730	57	110	14.5	28	52	0	14	4.2	7.7	2.0	66
SEP 13...	1130	94	110	8.0	--	36	0	8.0	3.8	8.1	1.9	59

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 15...	3.0	2.3	.1	27	89	94	.09	--	.07	1100	660	60
SEP 13...	1.1	2.9	.0	30	94	85	.14	.06	--	2100	530	90

15258000 KENAI RIVER AT COOPER LANDING

LOCATION.--Lat 60°29'34", long 149°48'28", in SE¼ sec.28, T.5 N., R.3 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, Chugach National Forest, near center of span on upstream side of bridge on Sterling Highway, 0.9 mi (1.4 km) east (upstream) of Cooper Landing, Bean Creek, and Kenai Lake outlet.
DRAINAGE AREA.--634 mi² (1,642 km²).
PERIOD OF RECORD.--May 1947 to current year.
REVISED RECORDS.--WSP 2136: 1964 (M).
GAGE.--Nonrecording gage. Altitude of gage is 419.92 ft (127.992 m) National Geodetic Vertical Datum of 1929, revised, (levels by Alaska Department of Transportation). See WSP 2136 for history of changes prior to Aug. 28, 1965. Aug. 28, 1965 to Jan. 21, 1974 at site 30 ft (9 m) downstream at present datum.
REMARKS.--Records good. Diversion from Cooper Lake to Kenai Lake above gage through Cooper Lake powerplant began May 1961. Several observations of water temperature were made during the year.
COOPERATION.--Records of diversion furnished by Chugach Electric Association.
AVERAGE DISCHARGE.--31 years, 2,738 ft³/s (77.54 m³/s), 58.65 in/yr (1,490 mm/yr), 1,984,000 acre-ft/yr (2.45 km³/yr), adjusted to exclude diversion from Cooper Lake.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,100 ft³/s (654 m³/s) Sept. 21, 1974, gage height, 17.18 ft (5.236 m), result of release of stored water from glacier-dammed lake at head of unnamed glacier in the Snow River basin; no flow Mar. 27, 28, 1964, caused by earthquake.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft³/s (362 m³/s) Sept. 15, gage height, 13.62 ft (4.151 m); minimum, [illegible] ft³/s (14.7 m³/s) Apr. 9, gage height, 5.40 ft (1.646 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4040	2770	1180	785	725	860	620	770	3350	5590	6280	5630
2	3820	2640	1100	785	720	855	576	815	3380	5480	6670	5720
3	3650	2530	1050	770	715	835	592	875	3360	5480	6750	5560
4	3450	2440	1080	760	720	830	584	988	3350	5720	7030	5500
5	3270	2320	1060	745	720	820	580	1050	3390	6150	7030	5220
6	3190	2210	1050	750	720	805	580	1150	3390	7200	6990	5220
7	2980	2130	1040	745	720	795	560	1220	3540	7470	6990	5080
8	2890	2030	1020	745	745	815	532	1300	3680	7430	6910	4950
9	2950	1970	1000	745	755	795	520	1380	3870	7260	7010	4920
10	3030	1860	988	740	770	795	544	1470	3930	6930	7550	4970
11	3620	1800	988	755	755	775	556	1670	4290	6930	7790	5020
12	4460	1760	940	745	690	755	536	1800	4530	6970	7880	5740
13	4750	1690	935	755	725	745	544	1950	4780	7160	7750	8340
14	4750	1640	920	710	720	750	548	2100	5020	7030	7550	11200
15	4650	1600	920	715	705	740	536	2200	5310	6930	7200	12700
16	4530	1550	905	720	705	730	532	2370	5570	6610	7000	12100
17	4140	1520	885	725	710	730	544	2440	5660	6410	6800	10800
18	4230	1490	880	720	720	720	548	2530	5570	6160	6550	9800
19	4000	1490	875	720	705	720	552	2620	5430	6130	6510	8820
20	3800	1440	870	730	735	715	552	2700	5270	6280	6130	8010
21	3630	1370	865	750	725	690	564	2800	5270	6340	6130	7130
22	3620	1370	855	745	750	690	564	2840	5320	6370	5900	6430
23	3550	1360	825	735	770	675	564	2920	5500	6340	5750	5790
24	3540	1330	825	740	850	660	588	3030	5660	6370	5610	5260
25	3470	1300	825	745	810	640	600	3180	5680	6410	5360	4830
26	3450	1270	810	760	860	640	624	3250	5770	6360	5290	4430
27	3270	1230	800	760	835	636	655	3340	5750	6220	5000	4120
28	3160	1220	790	740	860	632	690	3300	5600	6160	4780	3840
29	3030	1200	775	735	---	628	695	3300	5600	6050	4560	3620
30	2950	1200	775	735	---	616	740	3210	5570	6010	4650	3480
31	2910	---	780	740	---	612	---	3270	---	6130	5100	---
TOTAL	112780	51730	28611	23050	20940	22704	17420	67838	142390	200080	198500	194330
MEAN	3638	1724	923	744	748	732	581	2188	4746	6454	6403	6478
MAX	4750	2770	1180	785	860	860	740	3340	5770	7470	7880	12700
MIN	2890	1200	775	710	690	612	520	770	3350	5480	4560	3480
AC-FT	223700	102600	56750	45720	41530	45030	34550	134600	282400	396900	393700	385500

CAL YR 1977 TOTAL 1533686 MEAN 4202 MAX 15500 MIN 590 AC-FT 3042000
WTR YR 1978 TOTAL 1080373 MEAN 2960 MAX 12700 MIN 520 AC-FT 2143000

ADJUSTED TO EXCLUDE DIVERSION FROM COOPER LAKE

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3,468	1,475	697	546	558	573	535	2,101	4,610	6,350	6,283	6,323
CFSM	5.47	2.33	1.10	0.86	0.88	0.90	0.84	3.31	7.27	10.02	9.91	9.97
IN	6.31	2.60	1.27	0.99	0.92	1.04	0.94	3.82	8.11	11.55	11.43	11.13
AC-FT	213,200	87,800	42,900	33,500	31,000	35,300	31,900	129,200	274,300	390,400	386,400	376,300

CAL YR 1977 MEAN 4,072 CFSM 6.42 IN 87.18 AC-FT 2,948,000
WTR YR 1978 MEAN 2,807 CFSM 4.43 IN 60.10 AC-FT 2,032,000

15266300 KENAI RIVER AT SOLDOTNA

LOCATION.--Lat 60°28'39", long 151°04'46", Kenai Peninsula Borough, Hydrologic Unit 19050002, near center of span on downstream side of bridge on Sterling Highway, 1.0 mi (1.6 km) southwest of Soldotna.

DRAINAGE AREA.--2,010 mi² (5,210 km²).

PERIOD OF RECORD.--May 1965 to current year.

GAGE.--Nonrecording gage. Datum of gage is 35.34 ft (10.772 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Nov. 19 to May 1, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 5,617 ft³/s (159.1 m³/s), 37.95 in/yr (964 mm/yr), 4,070,000 acre-ft/yr (5.02 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft³/s (954 m³/s) Sept. 9, 1977, gage height, 13.45 ft (4.100 m), from graph based on gage readings; maximum gage height, 22.62 ft (6.895 m) Jan. 18, 1969, backwater from ice; minimum daily discharge, 770 ft³/s (21.8 m³/s) Apr. 1-4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft³/s (462 m³/s) Sept. 19, gage height, 10.30 ft (3.139 m); minimum daily, about 1,140 ft³/s (32 m³/s) Mar. 9-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8700	5100	2150	1400	1270	1170	1190	1750	4700	10000	12800	10900
2	8380	4880	2150	1400	1270	1170	1190	1800	4720	10100	13100	10800
3	8080	4720	2070	1400	1270	1170	1190	1840	4780	10100	13200	10700
4	7750	4620	2000	1400	1240	1170	1190	1880	4950	10100	13300	10800
5	7390	4550	2000	1400	1240	1170	1190	2000	4950	10500	13500	11100
6	7150	4300	1950	1350	1240	1170	1190	2070	5000	11200	13600	11500
7	6850	4150	1950	1350	1240	1170	1200	2040	5080	11200	13600	11100
8	6790	3950	1900	1350	1240	1170	1200	2040	5260	11500	13600	10900
9	6730	3820	1900	1350	1240	1140	1200	2180	5560	11600	13700	10700
10	6820	3700	1850	1330	1220	1140	1250	2180	5890	12000	14100	10400
11	7090	3700	1850	1330	1220	1140	1250	2220	6160	12400	14300	10000
12	7300	3320	1800	1330	1220	1140	1320	2300	6430	13000	14300	9900
13	7240	3220	1800	1330	1220	1140	1320	2400	6700	13400	14700	12300
14	7240	3220	1750	1330	1220	1140	1320	2560	7060	13400	14800	13700
15	7390	3080	1750	1330	1200	1140	1360	2700	7840	13100	14800	14500
16	7480	2980	1700	1310	1200	1140	1360	2880	8410	13000	14700	15200
17	7450	2960	1700	1310	1200	1140	1400	2960	8440	12700	14800	16000
18	7300	2860	1650	1300	1200	1140	1400	2980	8350	12700	14700	16200
19	6910	2750	1650	1300	1200	1140	1450	3060	8470	12800	14500	16300
20	6910	2700	1600	1300	1200	1140	1450	3140	8740	13200	14400	15900
21	6760	2650	1600	1300	1200	1140	1500	3280	8820	12900	14200	15100
22	6610	2600	1550	1300	1200	1140	1500	3480	8900	13000	13900	14400
23	6430	2500	1550	1300	1200	1140	1550	3680	10200	13000	13500	13500
24	6280	2450	1500	1300	1170	1140	1550	4020	10300	12900	13200	12700
25	6130	2400	1500	1300	1170	1170	1600	4050	10100	13100	12800	11800
26	6070	2350	1500	1300	1170	1170	1600	4180	10300	13100	12500	10800
27	5770	2300	1450	1270	1170	1170	1650	4300	10300	13000	12000	10000
28	5710	2300	1450	1270	1170	1170	1650	4380	10200	13000	11600	9300
29	5590	2250	1450	1270	---	1170	1700	4480	9980	12900	11200	8500
30	5470	2200	1450	1270	---	1170	1700	4520	9980	12700	11000	8000
31	5290	---	1450	1270	---	1170	---	4650	---	12700	10900	---
TOTAL	213060	98580	53620	41050	34000	35790	41620	92000	226570	380300	417300	363000
MEAN	6873	3286	1730	1324	1214	1155	1387	2968	7552	12270	13460	12100
MAX	8700	5100	2150	1400	1270	1170	1700	4650	10300	13400	14800	16300
MIN	5290	2200	1450	1270	1170	1140	1190	1750	4700	10000	10900	8000
CFSM	3.42	1.64	.86	.66	.60	.58	.69	1.48	3.76	6.10	6.70	6.02
IN.	3.94	1.82	.99	.76	.63	.66	.77	1.70	4.19	7.04	7.72	6.72
AC-FT	422600	195500	106400	81420	67440	70990	82550	182500	449400	754300	827700	720000

CAL YR 1977 TOTAL 3016620 MEAN 8265 MAX 33200 MIN 1450 CFSM 4.11 IN 55.83 AC-FT 5983000
WTR YR 1978 TOTAL 1996890 MEAN 5471 MAX 16300 MIN 1140 CFSM 2.72 IN 36.96 AC-FT 3961000

NOTE.--No gage-height record Dec. 11 to Mar. 20.

15266500 BEAVER CREEK NEAR KENAI

LOCATION.--Lat 60°33'50", long 151°07'03", in SE¼ sec.36, T.6 N., R.11 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, on right bank 75 ft (23 m) downstream from culvert on Kenai-Soldotna Road, 2.0 mi (3.2 km) upstream from mouth, and 4.5 mi (7.2 km) east of Kenai.

DRAINAGE AREA.--51 mi^2 (132 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1978 (discontinued).

GAGE.--Water-stage recorder and staff gage. Altitude of gage is 48 ft (15 m), from topographic map. Prior to Oct. 1, 1975, at site 140 ft (43 m) upstream at different datum.

REMARKS.--Records good except those for Nov. 2 to Apr. 12, which are poor.

AVERAGE DISCHARGE.--11 years, 25.8 ft^3/s (0.731 m^3/s), 6.87 in/yr (174 mm/yr), 18,690 acre-ft/yr (23.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 598 ft^3/s (16.9 m^3/s) May 8, 1972, gage height, 10.55 ft (3.216 m), site and datum then in use; minimum, 8.2 ft^3/s (0.23 m^3/s) Oct. 23, 1969, temporary ice storage upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) Apr. 21, gage height, 1.73 ft (0.527 m), minimum recorded, 9.8 ft^3/s (0.28 m^3/s) Aug. 27, but may have been less during period of no gage-height record Nov. 20 to Mar. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUFS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	31	11	11	14	15	19	44	21	19	13	15
2	39	29	10	11	14	15	21	43	20	19	13	15
3	34	28	10	12	14	15	21	42	19	17	13	13
4	32	28	10	12	14	15	22	39	17	18	13	12
5	30	25	10	12	14	15	22	38	17	18	12	16
6	28	25	10	12	14	15	23	37	17	18	12	22
7	28	23	10	12	14	15	24	34	17	17	12	18
8	29	23	10	12	14	15	26	33	16	17	12	17
9	28	21	10	12	14	15	27	31	16	16	13	23
10	27	20	10	13	14	15	28	30	15	16	13	22
11	26	20	10	13	14	16	30	28	15	15	13	21
12	26	18	10	13	14	16	33	26	15	15	14	18
13	24	18	10	13	14	16	36	26	15	16	13	18
14	22	17	10	13	14	16	40	26	19	15	14	16
15	26	16	10	13	14	16	45	25	27	16	13	15
16	29	16	10	13	14	16	52	23	26	16	13	15
17	32	16	10	13	14	16	62	22	26	15	13	14
18	33	14	10	13	14	16	76	21	26	14	13	14
19	33	14	10	13	14	16	89	21	27	15	13	14
20	30	14	10	13	14	16	103	19	26	16	13	16
21	30	12	10	14	14	17	108	19	22	18	13	16
22	34	12	10	14	14	17	102	19	23	18	12	16
23	34	12	10	14	14	17	94	19	22	17	11	15
24	34	12	10	14	15	17	86	19	20	18	11	15
25	32	12	10	14	15	17	76	20	21	21	11	15
26	31	11	11	14	15	18	69	19	26	19	11	15
27	29	11	11	14	15	18	63	19	24	18	10	15
28	31	11	11	14	15	18	58	19	22	16	11	15
29	31	11	11	14	---	18	52	21	20	15	11	14
30	31	11	11	14	---	19	48	20	19	14	11	14
31	32	---	11	14	---	19	---	21	---	13	11	---
TOTAL	949	531	317	403	397	505	1555	823	616	515	381	484
MEAN	30.6	17.7	10.2	13.0	14.2	16.3	51.8	26.5	20.5	16.6	12.3	16.1
MAX	44	31	11	14	15	19	108	44	27	21	14	23
MIN	22	11	10	11	14	15	19	19	15	13	10	12
CFSM	.60	.35	.20	.26	.28	.32	1.02	.52	.40	.33	.24	.32
IN.	.69	.39	.23	.29	.29	.37	1.13	.60	.45	.38	.28	.35
AC-FT	1880	1050	629	799	787	1000	3080	1630	1220	1020	756	960

CAL YR 1977 TOTAL 9978.0 MEAN 27.3 MAX 228 MIN 9.5 CFSM .54 IN 7.28 AC-FT 19790
WTR YR 1978 TOTAL 7476.0 MEAN 20.5 MAX 108 MIN 10 CFSM .40 IN 5.45 AC-FT 14830

NOTE.--No gage-height record Nov. 9 to Apr. 12.

15266500 BEAVER CREEK NEAR KENAI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-1974 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
JAN									
10...	1600	13	165	6.3	.0	752	--	84	0
FEB									
24...	1030	15	152	7.2	.0	756	10.2	97	0
APR									
13...	0930	36	142	7.3	.0	776	10.8	75	0
25...	1400	75	77	6.8	2.5	749	--	42	0
MAY									
04...	1030	36	102	7.4	6.0	765	10.0	63	0
JUN									
08...	2000	16	132	7.0	11.5	756	10.7	81	0
JUL									
13...	1230	16	143	--	10.0	759	10.4	--	--
AUG									
15...	1100	13	180	8.0	10.0	766	10.1	113	0
SEP									
29...	0850	14	148	6.8	3.0	756	11.0	85	0

15266895 BERNICE LAKE NEAR KENAI

LOCATION.--Lat 60°41'37", long 151°21'45", in SE¼ sec.15, T.7 N., R.12 W., Kenai Peninsula Borough, Hydrologic Unit 1905002, at campground on south side of lake, and 10 mi (16.1 km) northwest of Kenai.

DRAINAGE AREA.--Not applicable. Lake level may be controlled primarily by ground-water level fluctuations rather than surface inflow.

PERIOD OF RECORD.--Lake-level measurements once or twice yearly, water years 1970-72 and 1974-76. June 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, water levels from reference mark at datum 57.92 ft (17.654 m) higher.

REMARKS.--Records good. Surface area of lake is 146 acres or 0.23 mi² (0.59 km²).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 76.51 ft (23.320 m) Nov. 22, 1978; minimum observed elevation, 74.56 ft (22.726 m) July 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 76.51 ft (23.320 m) Nov. 22; minimum elevation, 75.19 ft (22.918 m) Sept. 4.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76.40	76.46	76.48	76.39	76.38	76.35	76.26	76.21	---	75.72	75.51	75.24
2	76.39	76.46	76.48	76.38	76.34	76.35	76.24	76.20	---	75.71	75.55	75.24
3	76.39	76.46	76.47	76.38	76.33	76.33	76.23	---	---	75.70	75.51	75.21
4	76.39	76.45	76.46	76.36	76.33	76.32	76.23	---	---	75.71	75.49	75.20
5	76.39	76.41	76.47	76.36	76.35	76.30	76.22	---	---	75.71	75.48	75.24
6	76.39	76.41	76.47	76.36	76.39	76.30	76.20	---	---	75.68	75.48	75.25
7	76.39	76.40	76.47	76.35	76.43	76.30	76.22	---	---	75.69	75.44	75.23
8	76.39	76.41	76.47	76.36	76.44	76.31	76.23	---	---	75.68	75.44	75.27
9	76.39	76.41	76.47	76.38	76.45	76.30	76.24	---	75.78	75.68	75.44	75.31
10	76.39	76.42	76.48	76.38	76.45	76.30	76.23	---	75.76	75.68	75.44	75.33
11	76.34	76.42	76.48	76.37	76.45	76.29	76.22	---	75.75	75.66	75.43	75.35
12	76.34	76.42	76.50	76.37	76.45	76.28	76.22	---	75.73	75.67	75.43	75.37
13	76.35	76.42	76.50	76.37	76.44	76.28	76.23	---	75.73	75.67	75.42	75.39
14	76.35	76.43	76.50	76.36	76.43	76.28	76.23	---	75.74	75.66	75.42	75.39
15	76.35	76.45	76.48	76.34	76.43	76.28	76.23	---	75.77	75.64	75.41	75.38
16	76.36	76.45	76.46	76.34	76.42	76.29	76.23	---	75.81	75.63	75.40	75.36
17	76.39	76.47	76.41	76.35	76.42	76.29	76.24	---	75.81	75.62	75.40	75.36
18	76.40	76.49	76.38	76.35	76.41	76.26	76.29	---	75.81	75.60	75.40	75.37
19	76.40	76.49	76.37	76.35	76.39	76.26	76.28	---	75.81	75.60	75.39	75.37
20	76.40	76.49	76.39	76.36	76.39	76.26	76.30	---	75.80	75.61	75.38	75.38
21	76.39	76.48	76.39	76.35	76.39	76.28	76.32	---	75.80	75.62	75.35	75.41
22	76.42	76.49	76.39	76.35	76.39	76.30	76.33	---	75.80	75.62	75.33	75.40
23	76.40	76.49	76.39	76.34	76.39	76.29	76.35	---	75.79	75.62	75.33	75.37
24	76.39	76.49	76.41	76.40	76.39	76.29	76.36	---	75.78	75.62	75.33	75.37
25	76.38	76.49	76.40	76.41	76.39	76.28	76.32	---	75.77	75.63	75.31	75.38
26	76.38	76.47	76.41	76.40	76.38	76.28	76.29	---	75.78	75.62	75.29	75.38
27	76.38	76.47	76.42	76.39	76.37	76.27	76.29	---	75.78	75.62	75.29	75.38
28	76.42	76.48	76.42	76.38	76.36	76.27	76.28	---	75.76	75.61	75.27	75.37
29	76.44	76.48	76.41	76.38	---	76.27	76.27	---	75.73	75.58	75.28	75.35
30	76.41	76.47	76.39	76.38	---	76.27	76.25	---	75.72	75.57	75.30	75.36
31	76.46	---	76.39	76.38	---	76.26	---	---	---	75.57	75.28	---
MEAN	76.39	76.45	76.44	76.37	76.40	76.29	76.26	---	---	75.65	75.39	75.33
MAX	76.46	76.49	76.50	76.41	76.45	76.35	76.36	---	---	75.72	75.55	75.41
MIN	76.34	76.40	76.37	76.34	76.33	76.26	76.20	---	---	75.57	75.27	75.20

NOTE.--Lake was frozen from about Nov. 5 to about May 10.

15266895 BERNICE LAKE NEAR KENAI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
OCT							
19...	1500	1.0	75	6.0	4.0	28	0

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT						
19...	.09	1.2	1.8	3.0	3.1	.06

15267000 BISHOP CREEK NEAR KENAI

LOCATION.--Lat 60°46'35", long 151°05'45", in NW¼NE¼ sec.19, T.8 N., R.10 W., Kenai Peninsula Borough, on right bank 20 ft (6 m) upstream from culvert entrance on North Kenai Road at mile 35.1 (56.6 km) and 1.4 mi (2.3 km) upstream from mouth at Cook Inlet.

DRAINAGE AREA.--24.2 mi² (62.7 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 45 ft (13.7 m), from topographic map.

REMARKS.--Records poor prior to May 3, good thereafter. Discharge affected by storage in the many small lakes and swamps which comprise a major portion of the drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft³/s (3.03 m³/s) May 6, 1977, gage height, 3.30 ft (1.006 m); maximum observed gage height, 3.96 ft (1.207 m) Apr. 29, 1977, backwater from ice; minimum discharge, 4.2 ft³/s (0.12 m³/s) June 11, 1978, gage height 0.51 ft (0.155 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 60 ft³/s (1.70 m³/s) Apr. 26 and 27; maximum gage height, 3.66 ft (1.116 m) Apr. 23, backwater from ice; minimum discharge, 4.2 ft³/s (0.12 m³/s) June 11, gage height, 0.51 ft (0.155 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	26	15	15	18	19	22	52	12	14	27	12
2	18	26	14	15	18	19	23	48	12	13	25	11
3	18	25	14	15	18	19	23	46	12	13	23	11
4	17	25	14	15	18	19	23	44	11	14	21	11
5	17	24	14	15	18	19	24	41	11	14	20	14
6	17	24	14	15	19	18	24	38	10	15	19	16
7	16	23	13	15	19	18	24	35	9.4	15	17	16
8	16	23	13	15	19	18	25	35	8.2	16	15	17
9	16	23	13	15	19	18	25	32	6.0	18	14	19
10	16	22	13	15	19	18	26	31	5.6	18	13	19
11	15	22	13	15	20	18	26	30	4.8	16	12	19
12	15	22	12	15	20	18	27	28	5.2	15	10	19
13	15	21	12	16	20	18	27	26	5.4	13	9.7	16
14	15	21	12	16	20	18	28	25	6.8	14	9.7	18
15	15	21	12	16	20	18	28	25	9.4	21	8.8	18
16	16	20	12	16	21	19	29	24	13	23	8.5	18
17	16	20	12	16	21	19	30	23	14	21	8.0	17
18	18	20	12	16	21	19	31	21	14	20	8.0	16
19	18	19	12	16	21	19	33	19	17	23	8.2	16
20	20	19	13	16	21	19	35	18	20	23	9.4	17
21	20	18	13	17	21	20	40	17	19	25	9.7	18
22	22	18	13	17	21	20	45	17	19	26	9.4	18
23	22	17	13	17	20	20	50	16	17	27	9.4	18
24	24	17	13	17	20	20	55	16	15	28	9.1	18
25	24	17	13	17	20	21	58	15	15	29	8.5	18
26	26	16	14	17	20	21	60	14	19	28	8.2	17
27	26	16	14	17	20	21	60	14	19	28	8.2	17
28	27	16	14	17	20	21	58	13	18	27	8.2	16
29	27	15	14	17	---	22	56	12	17	27	8.5	16
30	26	15	14	17	---	22	54	12	16	28	9.1	16
31	26	---	14	17	---	22	---	12	---	28	11	---
TOTAL	603	611	408	495	552	600	1069	799	380.8	640	385.6	494
MEAN	19.5	20.4	13.2	16.0	19.7	19.4	35.6	25.8	12.7	20.6	12.4	16.5
MAX	27	26	15	17	21	22	60	52	20	29	27	19
MIN	15	15	12	15	18	18	22	12	4.8	13	8.0	11
CFSM	.81	.84	.55	.66	.81	.80	1.47	1.07	.53	.85	.51	.68
IN.	.93	.94	.63	.76	.85	.92	1.64	1.23	.59	.98	.59	.76
AC-FT	1200	1210	809	982	1090	1190	2120	1580	755	1270	765	980

WTR YR 1978 TOTAL 7037.4 MEAN 19.3 MAX 60 MIN 4.8 CFSM .80 IN 10.82 AC-FT 13960

BEST DOCUMENT AVAILABLE

15267000 BISHOP CREEK NEAR KENAI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1968-70 and 1978.

PERIOD OD DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to September 1978.

INSTRUMENTATION.--Specific conductance recorder since Nov. 2, 1977.

REMARKS.--No record December 6 to February 22 due to recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--Maximum recorded, 137 micromhos/cm Mar. 7; minimum, 63 micromhos/cm Apr. 29.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
DEC 07...	1500	14	125	--	.0	777	--	--	--
JAN 13...	1200	16	130	5.9	.0	765	--	64	0
FEB 23...	1700	20	120	6.4	.0	765	1.9	63	0
APR 12...	1530	27	122	6.5	.0	772	15.6	65	0
MAY 03...	1830	46	70	6.7	8.0	762	9.6	36	0
JUN 09...	1300	4.9	105	7.6	14.0	757	9.4	64	0
JUL 12...	2030	15	90	7.2	6.5	759	9.3	56	0
AUG 16...	1700	8.3	105	7.6	15.0	762	9.6	66	0
SEP 28...	1520	17	104	7.5	6.5	755	11.6	59	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	122	120			---	---	124	124
2			93	91	124	122			---	---	126	124
3			96	93	125	124			---	---	127	125
4			96	94	128	125			---	---	130	126
5			96	95	125	125			---	---	133	128
6			98	94	---	---			---	---	131	130
7			101	98	---	---			---	---	137	131
8			105	101	---	---			---	---	132	131
9			107	103	---	---			---	---	131	130
10			109	106	---	---			---	---	136	129
11			111	107	---	---			---	---	129	128
12			113	110	---	---			---	---	128	128
13			111	110	---	---			---	---	128	127
14			111	109	---	---			---	---	127	127
15			112	111	---	---			---	---	127	127
16			111	110	---	---			---	---	127	127
17			110	110	---	---			---	---	129	126
18			110	109	---	---			---	---	129	128
19			110	109	---	---			---	---	129	129
20			111	110	---	---			---	---	130	129
21			111	110	---	---			---	---	130	129
22			112	110	---	---			---	---	129	128
23			114	112	---	---			119	---	129	129
24			116	114	---	---			119	119	132	129
25			117	116	---	---			120	119	132	132
26			120	117	---	---			120	119	131	131
27			119	119	---	---			121	120	131	131
28			121	119	---	---			124	120	131	126
29			120	120	---	---			---	---	126	125
30			120	120	---	---			---	---	125	125
31			---	---	---	---			---	---	124	122
MONTH			121	91							137	122

15267000 BISHOP CREEK NEAR KENAI--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	123	122	69	68	97	95	83	83	92	88	108	106
2	123	122	68	67	98	94	83	83	95	93	106	104
3	122	122	71	68	99	98	84	83	96	95	105	104
4	122	122	74	69	98	98	84	83	99	96	105	104
5	123	121	71	69	98	98	84	83	100	99	104	101
6	124	123	70	69	99	99	84	84	101	100	104	103
7	124	124	73	70	99	99	84	84	102	100	103	100
8	124	124	75	73	100	99	85	84	102	100	101	95
9	126	124	75	74	---	100	86	85	102	100	100	97
10	126	126	75	74	110	107	86	86	104	102	100	98
11	126	124	77	75	110	107	90	86	104	103	99	97
12	124	122	78	77	111	109	90	86	105	103	98	97
13	122	121	77	77	111	109	88	86	105	104	100	99
14	121	119	84	77	110	102	89	87	106	104	100	99
15	119	114	84	84	102	97	90	88	106	105	102	101
16	114	111	84	84	97	87	90	88	107	106	107	101
17	111	102	85	85	90	87	91	90	108	106	104	102
18	104	96	85	85	92	89	93	92	109	107	105	103
19	96	91	86	85	92	90	93	91	109	107	104	103
20	91	91	89	86	91	90	92	90	108	106	104	103
21	91	85	90	89	92	90	91	89	108	107	104	104
22	85	76	98	91	90	87	90	87	108	107	105	104
23	77	73	98	95	87	86	89	87	107	106	104	103
24	72	69	96	96	91	87	87	84	107	106	105	104
25	69	68	96	95	91	90	86	86	107	106	105	104
26	68	66	96	95	92	89	86	85	107	106	105	103
27	65	65	97	95	88	85	89	86	108	106	104	103
28	64	64	95	94	90	87	90	89	108	107	104	103
29	67	63	95	94	90	84	91	88	109	107	105	103
30	68	66	97	95	84	83	88	86	109	108	104	102
31	---	---	97	96	---	---	88	86	109	108	---	---
MONTH	126	63	98	67	111	83	93	83	109	88	108	95
YEAR	137	63										

15267900 RESURRECTION CREEK NEAR HOPE

LOCATION.--Lat 60°53'40", long 149°38'13", Kenai Peninsula Borough, Hydrologic Unit 19050002, Chugach National Forest, on right bank 1.8 mi (2.9 km) south of Hope and 2.1 mi (3.4 km) upstream from mouth on south shore of Turnagain Arm.

DRAINAGE AREA.--149 mi², (386 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 258 ft³/s (7.307 m³/s), 23.51 in/yr (597 mm/yr), 186,900 acre-ft/yr (230 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s (76.5 m³/s) Oct. 6, 1969, gage height, 8.40 ft (2.560 m); maximum gage height, 8.96 ft (2.731 m) June 18, 1977; minimum daily discharge, 46 ft³/s (1.30 m³/s) Mar. 26 to Apr. 13, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 14	2130	893	25.3	7.92	2.414	Sept. 13	0030	*1,040	29.5	*8.10	2.469
June 22	2100	902	25.5	7.93	2.417						

Minimum daily discharge, about 60 ft³/s (1.70 m³/s) Mar. 24 to Apr. 7 and Apr. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	170	130	90	75	80	60	100	326	680	430	185
2	377	160	130	90	75	75	60	100	318	652	430	176
3	367	150	130	90	75	70	60	107	322	659	425	165
4	353	150	130	80	75	70	60	135	322	694	405	160
5	338	150	130	80	75	70	60	148	330	743	395	197
6	329	140	130	80	75	65	60	133	358	701	378	197
7	324	140	130	80	75	65	60	131	386	631	370	185
8	308	140	130	80	75	65	65	158	445	586	366	173
9	299	140	127	85	75	65	65	160	502	574	366	244
10	311	140	120	85	75	65	65	168	538	574	358	218
11	427	140	120	80	75	65	64	203	556	604	338	197
12	390	140	120	75	80	65	62	238	586	624	326	386
13	367	140	120	75	80	65	61	278	574	586	326	743
14	362	150	120	70	80	68	60	298	701	544	338	645
15	380	150	120	70	80	70	60	298	798	520	314	568
16	360	150	120	70	80	70	60	282	782	485	298	508
17	347	150	120	75	80	70	62	258	666	470	294	455
18	295	150	120	75	85	70	64	230	610	475	278	445
19	302	150	120	80	85	65	66	227	631	604	266	420
20	309	150	110	80	85	65	68	242	652	556	270	405
21	303	150	110	75	80	65	70	270	631	550	250	378
22	325	150	110	75	80	65	74	278	782	526	238	362
23	310	140	110	75	80	65	80	298	830	496	227	342
24	289	140	110	85	90	60	84	338	729	514	218	326
25	276	140	110	85	90	60	90	338	701	490	209	314
26	273	140	100	85	90	60	95	338	743	485	203	306
27	270	140	100	80	85	60	95	314	758	465	197	294
28	260	140	100	80	85	60	90	290	715	455	191	286
29	246	130	90	80	---	60	90	282	694	445	188	278
30	232	130	90	80	---	60	95	290	708	435	197	266
31	214	---	90	80	---	60	---	318	---	430	197	---
TOTAL	9930	4350	3597	2470	2240	2038	2105	7248	17694	17253	9286	9824
MEAN	320	145	116	79.7	80.0	65.7	70.2	234	590	557	300	327
MAX	427	170	130	90	90	80	95	338	830	743	430	743
MIN	214	130	90	70	75	60	60	100	318	430	188	160
CFSM	2.15	.97	.78	.54	.54	.44	.47	1.57	3.96	3.74	2.01	2.20
IN.	2.48	1.09	.90	.62	.56	.51	.53	1.81	4.42	4.31	2.32	2.45
AC-FT	19700	8630	7130	4900	4440	4040	4180	14380	35100	34220	18420	19490

CAL YR 1977 TOTAL 139173 MEAN 381 MAX 1850 MIN 62 CFSM 2.56 IN 34.75 AC-FT 276000
WTR YR 1978 TOTAL 88035 MEAN 241 MAX 830 MIN 60 CFSM 1.62 IN 21.98 AC-FT 174600

NOTE.--No gage-height record Nov. 1 to May 2.

15272550 GLACIER CREEK AT GIRDWOOD

LOCATION.--Lat 60°56'29", long 149°09'44", in SE¼ sec.19, T.10 N., R.2 E., Municipality of Anchorage, Hydrologic Unit 19050002, on left downstream wingwall of railroad bridge, 0.2 mi (0.3 km) upstream from mouth, and 0.2 mi (0.3 km) southeast of Girdwood.

DRAINAGE AREA.--62.0 mi² (160.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1965 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 18.99 ft (5.788 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers, post-earthquake datum of October 1964). Prior to July 23, 1973, on right downstream wingwall.

REMARKS.--Records fair except those for period of no gage-height record, Nov. 24 to Jan. 10, which are poor.

AVERAGE DISCHARGE.--13 years, 265 ft³/s (7.505 m³/s), 58.04 in/yr (1.474 mm/yr), 192,000 acre-ft/yr (237 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,710 ft³/s (218 m³/s) Sept. 18, 1967, gage height, 7.90 ft (2.408 m) from floodmarks, from rating curve extended above 3,800 ft³/s (110 m³/s); maximum gage height, 8.34 ft (2.542 m) Oct. 6, 1969, from outside floodmark; minimum, 10 ft³/s (0.28 m³/s) Mar. 24, 1977, gage height, 0.22 ft (0.067 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,970 ft³/s (84.1 m³/s) Sept. 13, gage height, 5.44 ft (1.658 m), only peak above base of 1,500 ft³/s (42 mm³/s); minimum daily, about 25 ft³/s (0.71 m³/s) Dec. 5-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	184	35	30	47	61	42	303	526	610	708	269
2	321	184	30	30	47	56	41	308	472	556	736	245
3	290	155	30	30	42	54	38	273	466	580	694	237
4	269	140	30	34	44	48	39	281	454	785	652	198
5	249	122	25	30	41	47	39	300	472	1070	580	390
6	241	115	25	35	42	44	39	300	472	1010	580	316
7	261	101	25	35	41	43	40	300	544	806	645	269
8	253	97	25	40	39	47	49	350	666	715	514	221
9	490	97	25	44	41	43	57	350	659	750	586	390
10	514	99	30	130	41	42	59	350	750	652	586	298
11	799	89	35	128	40	41	54	350	849	722	544	245
12	604	93	40	83	42	40	52	400	1220	750	502	1220
13	442	95	40	64	89	40	53	400	1090	666	502	1980
14	365	93	43	54	111	39	57	400	1040	617	410	1160
15	425	95	45	45	87	70	62	400	883	544	330	922
16	400	89	45	37	85	79	68	450	778	466	335	722
17	390	87	45	47	81	61	70	500	841	472	360	580
18	308	85	35	47	105	52	73	400	820	466	360	946
19	273	85	35	122	170	47	83	350	715	771	355	736
20	390	81	40	177	115	44	89	350	645	736	550	550
21	624	73	40	109	89	45	97	400	610	687	425	410
22	666	68	40	79	89	44	109	450	624	652	360	345
23	538	61	40	97	100	40	109	500	701	604	350	281
24	436	50	35	250	150	38	107	700	701	604	308	257
25	335	50	35	158	200	38	138	600	645	574	269	233
26	308	45	35	103	132	38	245	500	659	526	245	202
27	290	45	30	91	95	38	269	400	574	556	241	184
28	265	40	30	70	75	38	253	400	472	526	213	174
29	257	40	30	62	---	40	253	450	604	550	202	158
30	221	35	35	57	---	43	237	450	701	604	308	138
31	188	---	35	51	---	43	---	508	---	645	380	---
TOTAL	11767	2693	1068	2369	2280	1443	2921	12473	20673	20272	13830	14276
MEAN	380	89.8	34.5	76.4	81.4	46.5	97.4	402	689	654	446	476
MAX	799	184	45	250	200	79	269	700	1220	1070	736	1980
MIN	188	35	25	30	39	38	38	273	454	466	202	138
CFSM	6.13	1.45	.56	1.23	1.31	.75	1.57	6.48	11.1	10.5	7.19	7.68
IN.	7.06	1.62	.64	1.42	1.37	.87	1.75	7.48	12.40	12.16	8.30	8.57
AC-FT	23340	5340	2120	4700	4520	2860	5790	24740	41000	40210	27430	28320

CAL YR 1977 TOTAL 126324 MEAN 346 MAX 1150 MIN 24 CFSM 5.58 IN 75.79 AC-FT 250600
WTR YR 1978 TOTAL 106065 MEAN 291 MAX 1980 MIN 25 CFSM 4.69 IN 63.64 AC-FT 210400

15272550 GLACIER CREEK AT GIRDWOOD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1964-74, 1976, and 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
DEC									
14...	1330	43	137	6.8	.0	733	14.1	56	0
JAN									
20...	1300	154	95	7.0	.0	747	13.4	37	0
MAR									
15...	1440	77	102	7.2	1.0	758	13.5	48	0
APR									
27...	1100	224	70	6.8	3.0	758	12.8	39	0
MAY									
31...	1245	455	82	6.7	4.5	763	12.7	34	0
JUL									
20...	1130	E690	69	--	5.0	772	12.7	--	--
AUG									
18...	1500	412	80	7.8	9.5	765	11.3	42	0

E ESTIMATED

15273900 SOUTH FORK CAMPBELL CREEK AT CANYON MOUTH NEAR ANCHORAGE

LOCATION.--Lat 61°08'52", long 149°43'12", in NE¼ sec. 12, T.12 N., R.3 W., Municipality of Anchorage, Hydrologic Unit 19050002, on right bank, 1.9 mi (3.1 km) upstream from ford on Campbell Airstrip road crossing, and 7.5 mi (12.1 km) southeast of Anchorage Post Office.

DRAINAGE AREA.--25.2 mi^2 (65.3 km^2).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (158 m), from topographic map.

REMARKS.--Records good except those for Oct. 27 to Apr. 16, which are fair. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--12 years, 40.1 ft^3/s (1.136 m^3/s), 21.61 in/yr (549 mm/yr), 29,050 acre-ft/yr (35.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 342 ft^3/s (9.69 m^3/s) Sept. 21, 1976, gage height, 3.89 ft (1.186 m), maximum gage height, 8.0 ft (2.44 m) winter 1970-71, backwater from ice; minimum discharge, 5.5 ft^3/s (0.16 m^3/s) May 7 and 8, 1978, gage height, 1.84 ft (0.561 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 208 ft^3/s (5.89 m^3/s) June 14, gage height, 3.47 ft (1.058 m), only peak above base of 160 ft^3/s (4.5 m^3/s); minimum discharge, 5.5 ft^3/s (0.16 m^3/s), May 7 and 8, gage height, 1.84 ft (0.561 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	48	31	26	20	17	12	16	35	93	55	33
2	144	45	32	25	21	17	12	16	35	85	54	32
3	138	48	31	24	20	17	12	8.3	35	81	52	32
4	130	51	30	24	20	17	12	8.1	35	83	51	31
5	119	50	29	23	20	17	12	8.8	37	87	50	38
6	112	46	28	23	20	17	12	8.8	39	87	48	39
7	107	41	29	23	19	18	12	5.7	42	75	46	37
8	101	39	29	22	19	17	12	5.9	51	65	46	35
9	97	42	29	22	18	17	12	6.7	62	64	45	42
10	92	45	29	23	18	17	12	7.2	61	64	43	42
11	102	42	29	22	18	17	12	14	59	67	42	40
12	90	40	28	22	17	17	12	18	64	81	41	50
13	90	37	28	21	17	16	12	17	61	65	40	97
14	89	35	28	21	17	16	12	23	129	62	43	81
15	99	36	28	21	17	16	12	32	137	58	45	59
16	87	35	28	21	17	16	12	26	117	52	41	61
17	86	35	28	21	17	11	12	24	89	50	40	52
18	81	36	29	21	17	13	12	24	81	51	39	50
19	89	34	29	21	17	13	12	24	79	67	39	48
20	89	35	30	21	17	13	13	27	79	91	47	46
21	71	34	30	20	17	13	13	32	77	111	43	44
22	71	34	29	20	17	13	13	32	115	121	39	41
23	69	33	29	20	17	14	13	36	117	95	37	40
24	67	32	28	20	17	17	13	42	93	85	37	39
25	64	33	28	20	17	12	13	37	93	79	36	39
26	62	34	28	20	17	12	14	37	105	71	35	38
27	60	35	28	21	17	12	14	34	105	65	35	38
28	58	36	27	20	17	12	14	33	97	65	35	37
29	56	34	27	20	---	12	14	34	91	61	34	36
30	54	32	27	20	---	12	15	34	99	58	34	36
31	51	---	26	20	---	12	---	35	---	57	33	---
TOTAL	2779	1157	889	668	502	460	377	706.5	2319	2296	1305	1333
MEAN	89.6	38.6	28.7	21.5	17.9	14.8	12.6	22.8	77.3	74.1	42.1	44.4
MAX	154	51	32	26	21	18	15	42	137	121	55	97
MIN	51	32	26	20	17	11	12	5.7	35	50	33	31
CFSM	3.56	1.53	1.14	.85	.71	.59	.50	.91	3.07	2.94	1.67	1.76
IN.	4.10	1.71	1.31	.99	.74	.68	.56	1.04	3.42	3.39	1.93	1.97
AC-FT	5510	2290	1760	1320	996	912	748	1400	4600	4550	2590	2640

CAL YR 1977 TOTAL 22319.9 MEAN 61.2 MAX 264 MIN 7.0 CFSM 2.43 IN 32.95 AC-FT 44270
WTR YR 1978 TOTAL 14791.5 MEAN 40.5 MAX 154 MIN 5.7 CFSM 1.61 IN 21.83 AC-FT 29340

15274300 NORTH FORK CAMPBELL CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°10'10", long 149°45'43", in SW¼ sec.35, T.13 N., R.3 W., Municipality of Anchorage, Hydrologic Unit 19050002, on right bank 40 ft (12 m) upstream from Campbell Airstrip road, 2.5 mi (4.0 km) upstream from confluence with South Fork, and 5.5 mi (8.8 km) southeast of Anchorage Post Office.

DRAINAGE AREA.--13.4 mi^2 (34.7 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1967-74. June 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (91 m), from topographic map. May 7, 1967 to June 5, 1974, crest-stage gage at site 25 ft (7.6 m) downstream at same datum.

REMARKS.--Records good except those for period of no gage-height record, Nov. 1 to Apr. 17, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft^3/s (3.03 m^3/s) Aug. 9, 1971, gage height, 12.18 ft (3.712 m); minimum daily, about 1.0 ft^3/s (0.028 m^3/s) Dec. 8, 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft^3/s (1.64 m^3/s) Oct. 1, stage falling, peak occurred Sept. 30, 1977; maximum peak discharge, 49 ft^3/s (1.39 m^3/s) June 14, gage height, 11.20 ft (3.414 m); minimum daily, about 3.5 ft^3/s (0.099 m^3/s) Feb. 10-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	24	14	8.0	4.5	4.0	5.0	6.5	7.8	31	24	13
2	53	24	13	7.5	4.5	4.0	5.0	6.7	7.5	29	24	13
3	51	24	13	7.5	4.5	4.0	5.0	7.0	7.0	29	23	13
4	49	22	13	7.5	4.0	4.0	5.0	6.7	7.2	28	23	13
5	47	22	13	7.5	4.0	4.0	5.0	6.7	7.0	30	22	16
6	44	22	13	7.0	4.0	4.0	5.0	6.5	7.0	34	22	16
7	44	22	12	7.0	4.0	4.0	5.0	6.2	7.5	30	22	16
8	43	20	12	7.0	4.0	4.0	5.5	6.2	8.9	27	22	14
9	42	20	12	7.0	4.0	4.0	5.5	6.2	10	26	22	16
10	39	20	12	7.0	3.5	4.0	6.0	6.2	16	27	21	16
11	39	20	12	6.5	3.5	4.0	6.0	6.5	19	30	20	16
12	38	19	11	6.5	3.5	4.0	6.5	6.2	20	32	20	19
13	37	19	11	6.5	3.5	4.0	6.5	5.5	21	30	18	30
14	37	19	11	6.0	3.5	4.0	7.0	5.5	35	29	19	29
15	39	18	11	6.0	3.5	4.0	7.5	5.0	42	28	19	24
16	37	18	10	6.0	3.5	4.0	7.5	5.3	37	24	19	23
17	36	18	10	6.0	3.5	4.0	8.0	5.5	31	24	18	20
18	32	18	10	5.5	3.5	4.0	8.0	5.5	26	24	16	19
19	29	17	10	5.5	3.5	4.5	8.0	5.8	24	31	17	17
20	30	17	9.5	5.5	4.0	4.5	7.8	5.8	24	32	18	17
21	30	17	9.5	5.5	4.0	4.5	7.8	6.0	24	37	18	16
22	29	16	9.5	5.5	4.0	5.0	7.5	6.2	34	38	16	16
23	29	16	9.5	5.0	4.0	5.0	7.8	6.5	44	32	16	16
24	28	16	9.0	5.0	4.0	5.0	7.0	6.5	35	29	16	16
25	28	15	9.0	5.0	4.0	5.0	6.7	7.0	32	27	16	16
26	28	15	9.0	5.0	4.0	5.0	7.5	6.7	32	26	15	15
27	27	15	8.5	5.0	4.0	5.0	6.7	7.5	32	25	14	15
28	27	14	8.5	5.0	4.0	5.0	6.5	7.2	31	24	14	15
29	26	14	8.5	4.5	---	5.0	6.7	6.7	30	23	14	15
30	26	14	8.0	4.5	---	5.0	6.2	7.2	32	23	13	14
31	25	---	8.0	4.5	---	5.0	---	7.5	---	24	13	---
TOTAL	1125	555	329.5	187.5	108.5	135.5	195.2	196.5	690.9	883	574	514
MEAN	36.3	18.5	10.6	6.05	3.88	4.37	6.51	6.34	23.0	28.5	18.5	17.1
MAX	56	24	14	8.0	4.5	5.0	8.0	7.5	44	38	24	30
MIN	25	14	8.0	4.5	3.5	4.0	5.0	5.0	7.0	23	13	13
CFSM	2.71	1.38	.79	.45	.29	.33	.49	.47	1.72	2.13	1.38	1.28
IN.	3.12	1.54	.91	.52	.30	.38	.54	.55	1.92	2.45	1.59	1.43
AC-FT	2230	1100	654	372	215	269	387	390	1370	1750	1140	1020

CAL YR 1977 TOTAL 7787.0 MEAN 21.3 MAX 72 MIN 2.9 CFSM 1.59 IN 21.62 AC-FT 15450
WTR YR 1978 TOTAL 5494.6 MEAN 15.1 MAX 56 MIN 3.5 CFSM 1.13 IN 15.25 AC-FT 10900

15274600 CAMPBELL CREEK NEAR SPENARD

LOCATION.--Lat 61°08'17", long 149°55'20", on line between sec.11 and 14, T.12 N., R.4 W., Municipality of Anchorage, Hydrologic Unit 19050002, on upstream right wingwall of bridge at Dimond Boulevard crossing, 2.0 mi (3.2 km) upstream from mouth, and 4.3 mi (6.9 km) south of Spenard.

DRAINAGE AREA.--69.7 mi² (180.5 km²).

PERIOD OF RECORD.--June 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 18.04 ft (5.499 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for period of no gage-height record, Nov. 4 to June 15, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 59.4 ft³/s (1.682 m³/s), 11.57 in/yr (294 mm/yr), 43,040 acre-ft/yr (53.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 421 ft³/s (11.9 m³/s) Aug. 9, 1971, gage height, 3.63 ft (1.106 m); maximum gage height recorded, 5.29 ft (1.612 m) Apr. 20, 1976, backwater from ice; minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Feb. 5, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 230 ft³/s (6.52 m³/s) Oct. 1, stage falling, peak occurred Sept. 28, 1977; maximum peak discharge recorded, 205 ft³/s (5.81 m³/s) June 16, gage height, 1.88 ft (0.573 m), but may have been greater during period of no gage-height record June 15; minimum daily discharge, about 18 ft³/s (0.51 m³/s) Mar. 14-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	76	32	38	24	19	24	40	46	144	92	47
2	198	75	32	38	24	19	26	40	48	129	89	45
3	186	75	32	38	24	19	26	40	48	124	87	43
4	186	75	30	38	24	19	26	40	48	124	86	42
5	175	70	30	36	22	19	28	40	50	126	83	70
6	160	70	30	36	22	19	28	40	50	136	82	70
7	150	65	30	36	22	19	28	40	55	123	77	63
8	140	65	30	34	22	19	30	40	60	110	76	59
9	140	65	30	34	22	19	32	40	70	104	75	73
10	130	60	30	34	22	19	34	40	75	103	72	77
11	140	60	30	34	20	19	34	42	80	105	69	72
12	130	55	30	32	20	19	34	42	85	124	68	72
13	130	55	30	32	20	19	34	44	85	114	68	149
14	130	50	30	32	20	18	34	44	160	109	75	135
15	140	50	30	32	20	18	34	44	200	105	78	105
16	120	50	30	30	20	18	34	44	180	96	70	100
17	120	48	30	30	20	18	36	42	155	89	71	89
18	110	48	30	30	20	18	36	40	128	87	65	84
19	120	46	30	30	20	18	36	40	120	114	62	78
20	120	44	30	30	20	18	36	40	119	131	69	77
21	100	44	30	28	20	18	36	40	115	146	69	74
22	100	42	30	28	20	18	36	42	144	184	63	70
23	100	42	32	28	19	18	36	42	181	166	59	64
24	100	40	34	28	19	18	36	44	151	142	56	65
25	100	40	36	26	19	20	36	46	141	128	53	63
26	100	38	38	26	19	20	36	46	166	118	51	61
27	100	36	40	26	19	20	38	46	158	111	49	60
28	100	36	40	26	19	22	38	46	152	108	49	59
29	96	34	40	26	---	22	38	44	138	103	50	57
30	93	34	40	24	---	22	38	44	144	97	49	57
31	91	---	40	24	---	24	---	44	---	94	48	---
TOTAL	4018	1588	1006	964	582	595	998	1306	3352	3694	2110	2180
MEAN	130	52.9	32.5	31.1	20.8	19.2	33.3	42.1	112	119	68.1	72.7
MAX	213	76	40	38	24	24	38	46	200	184	92	149
MIN	91	34	30	24	19	18	24	40	46	87	48	42
CFSM	1.87	.76	.47	.45	.30	.28	.48	.60	1.61	1.71	.98	1.04
IN.	2.14	.85	.54	.51	.31	.32	.53	.70	1.79	1.97	1.13	1.16
AC-FT	7970	3150	2000	1910	1150	1180	1980	2590	6650	7330	4190	4320

CAL YR 1977 TOTAL 30282 MEAN 83.0 MAX 353 MIN 10 CFSM 1.19 IN 16.16 AC-FT 60060
WTR YR 1978 TOTAL 22393 MEAN 61.4 MAX 213 MIN 18 CFSM .88 IN 11.95 AC-FT 44420

15275100 CHESTER CREEK AT ARCTIC BOULEVARD AT ANCHORAGE

LOCATION.--Lat 61°12'19", long 149°53'43", on line between sec.19, R.3 W., and sec.24, R.4 W., T.13 N., Municipality of Anchorage, Hydrologic Unit 19050002, on upstream right bank wingwall of bridge on Arctic Boulevard at Anchorage.

DRAINAGE AREA.--27.2 mi^2 (70.4 km^2).

PERIOD OF RECORD.--June 1966 to current year.

REVISED RECORDS.--WRD Alaska 1972: Drainage area.

GAGE.--Water-stage recorder and culvert control. Datum of gage is 16.02 ft (4.883 m) National Geodetic Vertical Datum of 1929 (from USC&GS, datum of 1968).

REMARKS.--Records fair except those for the period of no gage-height record, Nov. 2 to Mar. 10, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 16.5 ft^3/s (0.467 m^3/s), 8.24 in/yr (209 mm/yr), 11,950 acre-ft/yr (14.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 175 ft^3/s (4.96 m^3/s) Sept. 11, 1975, gage height, 4.37 ft (1.332 m); minimum daily, about 1.6 ft^3/s (0.045 m^3/s) Feb. 12-14, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103 ft^3/s (2.92 m^3/s) June 14, gage height, 4.32 ft (1.317 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Jan. 20 to Feb. 15 and Sept. 24-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	23	12	12	11	13	20	21	17	21	15	13
2	30	22	12	12	11	13	20	21	18	20	14	12
3	29	22	12	12	11	13	18	21	18	20	14	12
4	28	22	12	12	11	13	18	21	18	22	14	12
5	28	20	12	12	11	13	22	21	18	21	13	32
6	28	20	12	12	11	13	21	21	18	20	13	18
7	27	20	12	12	11	13	20	21	18	20	13	17
8	27	19	12	12	11	14	24	21	18	20	13	17
9	27	19	12	12	11	14	27	21	18	20	13	25
10	26	18	12	12	11	14	26	20	18	20	13	18
11	27	18	12	12	11	15	21	20	18	22	12	16
12	26	17	12	12	11	15	21	20	18	24	12	16
13	36	17	12	12	11	15	23	17	18	22	14	17
14	29	16	12	12	11	13	23	19	54	26	26	16
15	46	16	12	12	11	13	24	18	35	24	18	15
16	33	16	12	12	12	13	22	17	40	24	17	16
17	31	15	12	12	12	14	22	17	28	22	17	15
18	30	15	12	12	12	12	23	17	24	23	15	14
19	30	15	12	12	12	12	23	16	23	33	14	14
20	28	14	12	11	12	13	22	16	22	35	14	14
21	28	14	12	11	12	14	23	15	21	42	13	13
22	29	14	12	11	12	14	24	15	31	34	13	12
23	27	13	12	11	12	14	24	16	23	28	13	12
24	26	13	12	11	13	14	22	17	23	27	13	11
25	25	13	12	11	13	14	22	16	24	25	13	11
26	25	12	12	11	13	15	21	16	33	24	13	11
27	27	12	12	11	13	15	21	16	25	21	13	11
28	26	12	12	11	13	14	21	15	23	18	13	11
29	25	12	12	11	---	18	21	16	22	17	13	11
30	24	12	12	11	---	16	21	17	23	16	12	11
31	24	---	12	11	---	20	---	17	---	15	13	---
TOTAL	884	491	372	360	326	436	660	562	707	726	436	443
MEAN	28.5	16.4	12.0	11.6	11.6	14.1	22.0	18.1	23.6	23.4	14.1	14.8
MAX	46	23	12	12	13	20	27	21	54	42	26	32
MIN	24	12	12	11	11	12	18	15	17	15	12	11
CFSM	1.05	.60	.44	.43	.43	.52	.81	.67	.87	.86	.52	.54
IN.	1.21	.67	.51	.49	.45	.60	.90	.77	.97	.99	.60	.61
AC-FT	1750	974	738	714	647	865	1310	1110	1400	1440	865	879

CAL YR 1977 TOTAL 6718.0 MEAN 18.4 MAX 59 MIN 7.0 CFSM .68 IN 9.19 AC-FT 13330
WTR YR 1978 TOTAL 6403.0 MEAN 17.5 MAX 54 MIN 11 CFSM .64 IN 8.76 AC-FT 12700

15276000 SHIP CREEK NEAR ANCHORAGE

LOCATION.--Lat 61°13'25", long 149°37'55", in NE¼ sec.16, T.13 N., R.2 W., Municipality of Anchorage, Hydrologic Unit 19050002, in Fort Richardson Military Reservation, at diversion dam and Fort Richardson water-supply intake building, 3.5 mi (5.6 km) upstream from North Fork Ship Creek, and 8.5 mi (13.7 km) east of Anchorage.

DRAINAGE AREA.--90.5 mi² (234.4 km²).

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1936: Drainage area.

GAGE.--Water-stage recorder and masonry dam. Prior to May 10, 1976, spillway elevation was about 4 ft (1.2 m) lower. Datum of gage is 530 ft (161.5 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1936 for history of changes prior to Oct. 1, 1954.

REMARKS.--Records poor for period of no gage-height record prior to Apr. 25, good thereafter. Discharge data represent net flow remaining after diversion for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage. Average diversion for water year 1978, 19.5 ft³/s (0.55 m³/s). Diversion began in 1944. Several observations of water temperature were made during the year.

COOPERATION.--Gage inspected and records of diversion furnished by Office of Post Engineers, Fort Richardson.

AVERAGE DISCHARGE.--32 years, 159 ft³/s (4.503 m³/s), 23.86 in/yr (606 mm/yr), 115,200 acre-ft/yr (142 hm³/yr), adjusted to include diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) June 21, 1949, gage height, 3.44 ft (1.049 m), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 740 ft³/s (21 m³/s) June 14 or 15, gage height, 6.85 ft (2.088 m) from graph based on once-daily gage readings; minimum daily, about 16 ft³/s (0.45 m³/s) Mar. 11-31, Apr. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	130	70	44	30	24	17	40	177	348	225	90
2	400	120	70	44	30	22	17	44	180	321	219	88
3	350	120	65	44	30	20	17	50	182	309	216	87
4	320	120	65	42	30	20	17	56	185	318	205	85
5	300	120	60	42	30	20	17	61	200	348	200	102
6	280	110	60	42	30	20	17	56	222	382	188	112
7	280	110	55	42	30	18	17	47	258	334	178	102
8	260	110	55	42	30	18	17	50	288	303	172	96
9	260	110	55	42	32	18	16	55	297	294	162	109
10	260	110	55	40	32	18	16	57	306	288	158	114
11	260	100	50	40	32	16	16	68	324	294	152	107
12	240	100	50	40	32	16	17	77	372	321	148	161
13	220	100	50	38	32	16	18	87	372	291	146	477
14	220	100	50	38	32	16	18	107	702	264	144	366
15	220	95	50	36	32	16	17	120	562	249	142	279
16	220	95	55	36	32	16	17	107	542	228	134	240
17	200	90	55	36	30	16	17	98	436	219	134	202
18	180	90	55	38	30	16	17	90	372	216	120	200
19	180	90	55	38	30	16	18	90	330	273	118	188
20	180	90	55	36	30	16	19	98	312	294	144	175
21	180	90	55	36	30	16	18	126	315	327	136	160
22	180	85	55	36	30	16	22	136	421	318	126	152
23	180	85	55	36	28	16	22	142	460	291	118	146
24	160	85	55	36	28	16	20	165	414	282	109	136
25	160	80	55	34	28	16	20	174	376	264	107	130
26	160	80	50	34	28	16	25	180	368	252	101	120
27	150	80	50	34	26	16	31	169	358	246	98	114
28	150	80	48	32	26	16	32	167	344	246	93	109
29	150	75	48	32	---	16	33	158	337	228	93	107
30	140	75	46	32	---	16	36	160	365	222	91	101
31	130	---	46	32	---	16	---	174	---	222	91	---
TOTAL	7020	2925	1698	1174	840	534	601	3209	10377	8792	4468	4655
MEAN	226	97.5	54.8	37.9	30.0	17.2	20.0	104	346	284	144	155
MAX	450	130	70	44	32	24	36	180	702	382	225	477
MIN	130	75	46	32	26	16	16	40	177	216	91	85
AC-FT	13920	5800	3370	2330	1670	1060	1190	6370	20580	17440	8860	9230

CAL YR 1977 TOTAL 76909 MEAN 211 MAX 1100 MIN 10 AC-FT 152500
WTR YR 1978 TOTAL 46293 MEAN 127 MAX 702 MIN 16 AC-FT 91820

ADJUSTED TO INCLUDE DIVERSION

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	248	118	75.9	58.2	50.1	36.7	37.9	121	365	302	164	174
CFSM	2.74	1.30	0.84	0.64	0.55	0.41	0.42	1.34	4.03	3.34	1.81	1.92
IN	3.16	1.45	0.97	0.74	0.58	0.47	0.47	1.55	4.50	3.85	2.09	2.14
AC-FT	15,250	7,000	4,670	3,580	2,780	2,260	2,260	7,470	21,700	18,580	10,060	10,350

CAL YR 1977 MEAN 230 CFSM 2.54 IN 34.4 AC-FT 166,200
WTR YR 1978 MEAN 146 CFSM 1.61 IN 22.0 AC-FT 106,000

15276570 SHIP CREEK BELOW POWER PLANT AT ELMENDORF AIR FORCE BASE

LOCATION.--Lat 61°13'29", long 149°50'39", in SE¼ sec.8, T.13 N., R.3 W., Municipality of Anchorage, Hydrologic Unit 19050002, on left bank 500 ft (150 m) downstream from North Sitka Street, 0.5 mi (0.8 km) downstream from southwest corner of Elmendorf Air Force Base, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--115 mi^2 (298 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (24 m), from topographic map. Prior to Aug. 7, 1972, at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Water-discharge records good. Diversions above station for water supply to Fort Richardson, Elmendorf Air Force Base, and Municipality of Anchorage (see station 15276000). Water also diverted for cooling of power plant and returned above station.

AVERAGE DISCHARGE.--8 years, 129 ft^3/s (3.653 m^3/s), 93,460 acre-ft/yr (115 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) Aug. 9, 1971 (estimated from records at station 15276500); minimum, 5.8 ft^3/s (0.16 m^3/s) Apr. 14, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 599 ft^3/s (17.0 m^3/s) June 14, gage height, 3.30 ft (1.006 m); minimum, 19 ft^3/s (0.54 m^3/s) Apr. 25, gage height, 0.77 ft (0.235 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	113	46	43	28	23	23	36	199	308	225	96
2	373	109	39	37	32	23	23	40	199	294	223	89
3	351	125	82	36	25	23	23	51	204	288	221	87
4	335	135	48	36	28	23	23	59	199	294	213	87
5	316	129	48	38	30	23	23	70	214	313	209	109
6	299	111	48	37	28	23	23	71	235	345	199	114
7	291	97	49	36	27	24	23	53	269	311	185	105
8	277	73	49	39	30	23	23	55	299	285	180	102
9	266	107	48	41	29	23	21	64	313	283	173	111
10	260	128	47	41	28	23	23	65	322	277	165	112
11	266	119	46	40	27	23	23	82	348	285	151	111
12	255	89	48	40	26	23	22	96	370	305	149	152
13	252	84	47	39	25	23	23	109	361	280	139	422
14	255	61	47	37	24	23	23	129	437	266	139	364
15	260	73	47	32	24	23	22	151	477	249	132	297
16	243	68	49	28	24	23	23	139	470	230	123	266
17	235	60	52	33	25	23	23	125	402	218	122	233
18	206	81	53	39	23	22	22	120	335	213	112	225
19	175	76	52	37	24	23	24	120	305	243	111	211
20	218	81	51	36	24	22	27	114	291	277	132	197
21	216	65	51	34	25	23	25	138	288	305	123	182
22	209	64	50	33	24	23	29	151	348	311	112	170
23	199	58	52	33	23	23	27	161	399	288	114	155
24	194	52	50	33	23	23	27	185	370	280	109	145
25	182	56	50	31	23	23	23	187	335	269	105	139
26	173	65	49	28	23	23	25	206	338	255	102	129
27	170	81	48	32	23	23	29	189	322	241	98	119
28	165	84	43	29	23	23	31	192	314	249	98	112
29	161	77	44	29	---	23	27	175	305	233	94	109
30	155	60	39	29	---	23	31	180	319	225	94	106
31	149	---	36	30	---	23	---	189	---	223	92	---
TOTAL	7508	2581	1508	1086	718	712	734	3700	9591	8443	4442	4854
MEAN	242	86.0	48.6	35.0	25.6	23.0	24.5	119	320	272	143	162
MAX	402	135	82	43	32	24	31	206	477	345	225	422
MIN	149	52	36	28	23	22	21	36	199	213	92	87
AC-FT	14890	5120	2990	2150	1420	1410	1460	7340	19020	16750	8810	9630

CAL YR 1977 TOTAL 69930 MEAN 192 MAX 968 MIN 18 AC-FT 138700
WTR YR 1978 TOTAL 45877 MEAN 126 MAX 477 MIN 21 AC-FT 91000

15276570 SHIP CREEK BELOW POWER PLANT AT ELMENDORF AIR FORCE BASE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1971 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 19, 1970.

REMARKS.--Water temperatures at low flow are significantly increased by power plant effluent located 0.9 mi (1.4 km) upstream. Prior to August 1972, sampling site was 0.5 mi (0.8 km) upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 18.0°C Aug. 15, 16, 1974; minimum, 0.0°C Jan. 13, 14, 1974 and Feb. 3, 1978.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.5°C Aug. 1, 2, and 11, minimum, 0.0°C Feb. 3.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.0	3.5	3.5	2.0	2.0	1.5	2.5	1.5	5.5	2.5	7.5	2.5
2	5.5	3.0	2.5	2.0	2.0	1.0	2.0	1.0	5.0	1.5	8.0	2.0
3	6.5	4.5	2.0	1.5	1.5	.5	2.5	.5	2.5	.0	8.0	2.0
4	7.0	5.5	2.0	1.5	1.0	.5	4.5	.5	3.5	1.5	6.5	1.5
5	6.0	5.0	2.0	1.5	1.0	.5	2.5	.5	3.0	2.0	6.0	2.5
6	6.0	4.5	2.0	1.0	1.5	.5	2.5	.5	3.5	1.5	7.0	4.0
7	6.5	6.0	2.0	1.0	1.0	.5	2.0	.5	3.5	1.5	7.5	4.5
8	6.5	6.0	2.5	1.5	1.0	.5	3.0	.5	3.0	.5	9.5	5.0
9	6.5	6.5	3.0	.5	1.0	.5	4.5	3.0	3.5	.5	10.0	5.5
10	6.5	5.5	.5	.5	1.0	.5	5.0	3.5	3.5	2.0	11.0	7.0
11	7.0	6.5	1.0	.5	1.5	1.0	5.0	2.0	4.0	1.5	9.5	6.0
12	7.0	6.0	1.5	1.0	2.5	1.5	4.5	3.0	4.5	2.5	9.5	6.5
13	6.5	6.0	1.5	1.0	2.0	1.0	4.0	1.5	6.5	4.5	11.0	6.5
14	6.0	5.0	2.5	1.0	3.0	1.0	3.5	1.5	6.0	3.0	9.5	6.0
15	6.0	4.5	2.5	2.0	3.0	2.0	3.0	.5	6.0	2.5	11.0	7.0
16	5.0	4.5	2.0	1.5	3.0	2.0	3.5	.5	6.0	3.5	11.0	7.5
17	4.5	3.0	2.5	1.5	2.5	1.5	5.0	2.0	6.0	2.5	10.0	6.0
18	2.5	1.5	3.0	1.5	1.5	1.0	5.0	3.0	5.5	3.0	9.5	6.0
19	2.5	1.5	2.5	1.5	2.5	.5	5.5	3.0	6.0	5.0	9.5	6.0
20	2.5	1.5	2.0	1.5	3.5	2.0	6.0	3.5	7.0	5.0	10.5	7.0
21	3.5	2.0	3.0	1.5	4.0	3.0	5.5	4.0	6.5	2.5	10.5	6.5
22	4.5	3.5	3.0	1.0	4.5	3.0	5.5	3.0	8.0	4.5	11.0	8.0
23	4.0	2.5	2.5	1.0	4.0	3.0	5.5	3.0	8.5	6.5	9.5	6.0
24	3.5	3.0	2.5	1.0	4.0	2.0	6.5	4.5	9.5	5.5	10.5	4.5
25	4.0	3.0	2.5	1.5	3.0	2.5	6.0	2.5	8.5	6.5	10.0	5.0
26	4.5	3.0	2.5	1.5	3.0	2.5	5.5	3.0	8.0	4.5	10.5	8.0
27	5.0	4.0	2.0	1.5	4.5	3.0	5.5	3.5	8.5	4.0	11.0	6.5
28	5.0	4.0	3.0	2.0	4.0	2.5	5.0	1.5	9.0	4.0	10.5	7.0
29	4.0	3.5	2.5	1.0	4.0	2.0	3.5	1.5	---	---	11.5	8.5
30	3.5	3.0	2.0	1.5	3.5	1.5	5.5	1.5	---	---	10.5	8.0
31	3.5	3.0	---	---	2.5	1.0	4.0	1.0	---	---	12.0	9.0
MONTH	7.0	1.5	3.5	.5	4.5	.5	6.5	.5	9.5	.0	12.0	1.5

BEST DOCUMENT AVAILABLE

15276570 SHIP CREEK BELOW POWER PLANT AT ELMENDORF AIR FORCE BASE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	13.0	8.5	10.0	8.0	11.0	8.5	15.5	12.0	13.5	10.5
2	10.5	7.0	13.5	8.0	11.0	8.0	11.0	9.0	15.5	12.5	14.0	10.5
3	10.5	6.5	13.0	8.5	11.5	8.0	10.5	9.0	15.0	12.5	14.0	10.5
4	12.0	7.5	13.0	8.5	11.5	9.0	10.5	9.0	13.5	12.0	12.5	11.0
5	11.5	8.0	12.0	8.5	10.5	8.5	11.5	9.0	13.0	12.0	12.5	11.5
6	10.5	8.5	9.5	7.0	10.5	8.5	10.5	9.0	13.5	11.0	13.0	10.5
7	11.0	8.0	11.5	8.0	13.0	8.5	12.5	9.0	15.0	12.0	12.0	10.5
8	13.0	8.0	12.5	8.0	11.5	8.5	13.0	9.5	14.0	12.5	12.5	11.0
9	11.5	8.0	11.0	8.5	11.5	8.0	12.5	10.0	13.0	11.5	11.5	10.5
10	11.5	8.0	12.5	8.0	12.5	8.5	13.5	10.5	14.5	12.0	11.0	10.0
11	10.5	8.0	14.0	8.5	12.5	8.5	13.0	10.5	15.5	12.0	12.5	10.0
12	11.0	8.5	13.0	8.5	12.0	9.0	11.0	10.0	14.0	12.0	12.0	10.0
13	12.0	8.0	12.0	9.0	11.0	8.5	11.0	10.0	13.0	11.5	10.5	8.5
14	11.5	9.5	12.5	7.5	9.5	8.0	11.0	10.0	13.0	12.0	9.5	8.0
15	11.0	9.0	11.5	7.5	8.5	7.5	11.5	10.0	14.5	11.0	10.0	8.5
16	12.0	8.5	9.5	7.5	9.0	7.5	11.0	9.5	13.0	12.0	10.0	9.0
17	11.5	8.5	10.5	7.5	8.5	7.0	12.0	10.0	13.0	11.0	9.5	7.5
18	12.5	8.0	11.0	8.0	9.0	7.0	13.5	11.0	15.0	11.0	10.5	9.5
19	14.5	8.5	12.5	8.0	10.0	8.0	12.5	11.0	13.5	11.5	9.5	8.5
20	13.0	8.0	13.0	7.5	12.0	8.0	12.0	10.0	14.0	11.5	10.0	8.5
21	14.5	9.0	12.5	8.0	11.0	8.5	10.5	9.0	13.5	11.0	9.5	8.5
22	12.0	8.0	10.0	8.5	11.0	9.5	10.0	9.0	14.5	10.5	9.5	7.5
23	12.5	9.0	10.5	8.0	11.0	8.5	12.0	8.5	14.0	11.0	9.0	6.5
24	12.0	8.5	10.0	7.5	9.5	8.0	12.0	10.5	14.5	10.5	9.5	7.5
25	12.5	9.0	11.0	7.5	9.0	8.0	12.5	10.5	14.5	10.5	10.0	8.5
26	13.0	9.5	10.0	8.0	10.0	8.0	12.5	10.0	14.0	10.5	11.0	9.0
27	12.0	8.0	11.0	7.0	10.5	8.5	13.5	10.5	14.0	10.5	10.5	8.0
28	12.0	8.5	10.0	7.5	12.0	8.5	13.0	11.0	12.5	11.0	10.0	7.5
29	13.0	8.0	11.0	8.0	12.0	9.0	14.0	11.0	11.5	10.0	9.5	7.0
30	12.0	8.5	10.5	8.0	11.0	9.5	14.5	11.0	12.0	11.0	8.5	6.0
31	---	---	9.0	8.0	---	---	15.0	12.0	12.0	10.5	---	---
MONTH	14.5	6.5	14.0	7.0	13.0	7.0	15.0	8.5	15.5	10.0	14.0	6.0
YEAR	15.5	.0										

BEST DOCUMENT AVAILABLE

15277100 EAGLE RIVER AT EAGLE RIVER

LOCATION.--Lat 61°18'28", long 149°33'32", in NW¼ sec.13, T.14 N., R.2 W., Municipality of Anchorage, Hydrologic Unit 19050002, on right bank, 800 ft (200 m) upstream from Eagle River campground, 0.6 mi (1.0 km) upstream from Glenn Highway crossing, and 1.0 mi (1.6 km) south of Eagle River.

DRAINAGE AREA.--192 mi^2 (497 km^2), approximately.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Nov. 2 to May 3, which are fair. Summer flows augmented by glaciers that cover 13 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 511 ft^3/s (14.47 m^3/s), 36.14 in/yr (918 mm/yr), 370,200 acre-ft/yr (456 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) Sept. 18, 1967, gage height, 9.49 ft (2.893 m); minimum daily, 24 ft^3/s (0.68 m^3/s) Jan. 29 to Feb. 5, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft^3/s (96.9 m^3/s) Sept. 13, gage height, 7.75 ft (2.362 m), only peak above base of 2,400 ft^3/s (68 m^3/s); minimum daily, about 65 ft^3/s (1.84 m^3/s) Apr. 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768	192	150	130	110	90	70	110	350	996	1970	957
2	687	170	150	130	100	85	70	130	351	949	2050	924
3	636	160	150	130	100	85	70	150	374	971	2090	967
4	575	160	150	130	100	85	70	179	413	1170	2020	953
5	560	160	140	130	100	85	70	202	470	1510	1970	1140
6	530	160	140	130	100	85	70	200	470	1820	1680	1360
7	510	160	140	120	100	85	70	185	516	1520	1850	1210
8	485	160	140	120	100	85	70	184	615	1330	1850	1030
9	470	160	140	120	100	85	70	184	673	1340	1910	1060
10	485	160	140	120	100	80	65	183	773	1330	2000	968
11	610	160	140	120	100	80	65	201	877	1450	1870	898
12	688	160	140	120	100	80	65	227	978	1670	1840	1340
13	570	160	140	120	100	80	65	259	988	1600	1740	3130
14	505	160	140	120	100	80	65	271	955	1470	1500	2230
15	490	160	140	120	95	80	70	296	1180	1350	1370	1420
16	458	160	140	120	95	80	70	290	1210	1230	1370	1240
17	446	160	140	120	95	80	70	266	1020	1210	1250	1010
18	378	160	140	120	95	80	70	248	809	1250	1270	974
19	329	160	140	110	95	80	70	244	727	1640	1400	860
20	406	160	130	110	95	75	70	232	725	1950	1690	736
21	414	150	130	110	95	75	70	245	775	1670	1500	657
22	402	150	130	110	95	75	70	283	874	1590	1310	595
23	398	150	130	110	90	75	70	292	1250	1480	1250	532
24	362	150	130	110	90	75	70	305	1220	1510	1180	486
25	336	150	130	110	90	75	70	318	1060	1420	1130	460
26	322	150	130	110	90	75	75	341	97,	1380	1080	444
27	309	150	130	110	90	75	80	332	935	1410	1050	421
28	300	150	130	110	90	75	85	320	909	1550	1040	401
29	291	150	130	110	---	70	90	310	955	1560	986	382
30	279	150	130	110	---	70	95	309	1040	1690	1040	359
31	264	---	130	110	---	70	---	324	---	1840	1100	---
TOTAL	14263	4742	4260	3650	2710	2455	2150	7620	24467	44856	47356	29144
MEAN	460	158	137	118	96.8	79.2	71.7	246	816	1447	1528	971
MAX	768	192	150	130	110	90	95	341	1250	1950	2090	3130
MIN	264	150	130	110	90	70	65	110	350	949	986	359
CFSM	2.40	.82	.71	.62	.50	.41	.37	1.28	4.25	7.54	7.96	5.06
IN.	2.76	.92	.83	.71	.53	.48	.42	1.48	4.74	8.69	9.18	5.65
AC-FT	28290	9410	8450	7240	5380	4870	4260	15110	48530	88970	93930	57810

CAL YR 1977 TOTAL 254254 MEAN 697 MAX 3790 MIN 50 CFSM 3.63 IN 49.26 AC-FT 504300
WTR YR 1978 TOTAL 187673 MEAN 514 MAX 3130 MIN 65 CFSM 2.68 IN 36.36 AC-FT 372200

15277410 PETERS CREEK NEAR BIRCHWOOD

LOCATION.--Lat 61°25'08", long 149°29'20", in NW¼SE¼ sec.5, T.15 N., R.1 W., Municipality of Anchorage, Hydrologic Unit 19050002, on left bank 50 ft (15 m) upstream from Alaska Railroad bridge, 0.5 mi (0.8 km) downstream from unnamed tributary, 0.8 mi (1.3 km) upstream from mouth, and 1.0 mi (1.6 km) north of Birchwood.

DRAINAGE AREA.--87.8 mi^2 (227.4 km^2).

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 75 ft (22.9 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 102 ft^3/s (2.889 m^3/s), 15.78 in/yr (400 mm/yr), 73,900 acre-ft/yr (91.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 696 ft^3/s (19.7 m^3/s) Aug. 10, 1977, gage height, 6.13 ft (1.868 m); maximum gage height, 10.37 ft (3.161 m) Jan. 7, 1978, backwater from ice; minimum discharge, 10 ft^3/s (0.28 m^3/s) Feb. 16, 1977, gage height, 3.72 ft (1.134 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 600 ft^3/s (17.0 m^3/s) Sept. 13, gage height, 5.84 ft (1.780 m); maximum gage height, 10.37 ft (3.161 m) Jan. 7, backwater from ice; minimum discharge, 14 ft^3/s (0.40 m^3/s) Apr. 3, gage height, 3.68 ft (1.22 m), result of temporary ice jam upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	75	60	55	39	30	25	24	50	266	307	138
2	130	75	60	50	38	30	24	26	51	258	307	130
3	120	70	60	50	38	28	24	30	54	262	311	128
4	120	70	60	50	38	28	24	32	54	272	311	122
5	120	70	60	50	38	28	24	33	55	304	307	158
6	120	70	60	50	38	26	22	32	58	311	294	168
7	110	70	60	50	38	26	22	32	63	294	297	155
8	110	70	60	50	40	26	21	30	70	280	283	145
9	110	70	60	50	40	25	20	30	78	283	276	142
10	110	70	60	50	40	26	20	29	93	286	266	138
11	110	70	60	50	40	27	20	33	128	294	255	128
12	100	70	60	50	44	27	19	36	152	307	246	172
13	100	70	60	50	42	27	19	36	152	297	234	388
14	100	70	60	50	40	26	20	38	189	290	234	356
15	100	70	60	50	39	25	21	39	246	290	225	286
16	100	70	55	50	38	27	19	37	237	290	228	269
17	100	70	55	50	38	26	20	36	219	280	231	243
18	95	65	55	50	38	25	20	35	189	276	237	225
19	95	65	55	49	36	25	21	35	183	304	240	213
20	90	65	55	48	38	25	21	35	177	314	234	198
21	90	65	55	46	36	24	22	37	183	304	213	183
22	90	65	55	44	36	27	22	41	228	311	198	171
23	90	65	55	44	34	28	22	41	283	318	189	155
24	85	65	55	47	36	28	22	43	249	328	177	145
25	85	65	55	40	34	28	22	46	219	304	162	140
26	80	65	55	37	34	27	22	49	210	300	152	138
27	80	65	55	41	32	27	23	49	219	297	152	130
28	80	65	55	38	32	26	21	48	243	293	148	128
29	80	65	55	38	---	26	24	49	258	290	145	122
30	75	60	55	40	---	26	23	50	276	293	142	120
31	75	---	55	39	---	25	---	50	---	300	142	---
TOTAL	3080	2040	1780	1456	1054	825	649	1161	4866	9096	7143	5334
MEAN	99.4	68.0	57.4	47.0	37.6	26.6	21.6	37.5	162	293	230	178
MAX	130	75	60	55	44	30	25	50	283	328	311	388
MIN	75	60	55	37	32	24	19	24	50	258	142	120
CFSM	1.13	.77	.65	.54	.43	.30	.25	.43	1.85	3.34	2.62	2.03
IN.	1.30	.86	.75	.62	.45	.35	.27	.49	2.06	3.85	3.03	2.26
AC-FT	6110	4050	3530	2890	2090	1640	1290	2300	9650	18040	14170	10580

CAL YR 1977 TOTAL 45606 MEAN 125 MAX 506 MIN 18 CFSM 1.42 IN 19.32 AC-FT 90460
WTR YR 1978 TOTAL 38484 MEAN 105 MAX 388 MIN 19 CFSM 1.20 IN 16.31 AC-FT 76330

BEST DOCUMENT AVAILABLE

15281000 KNIK RIVER NEAR PALMER

LOCATION.--Lat 61°30'18", long 149°01'50", in NE¼SE¼ sec.2, T.16 N., R.2 E., Matanuska-Susitna Borough, Hydrologic Unit 19050002, near right bank on downstream side of bridge on Old Glenn Highway, 7 mi (11 km) south of Palmer, 7 mi (11 km) upstream from Alaska Railroad bridge, 9 mi (14 km) downstream from Friday Creek, and about 17 mi (27 km) downstream from Knik Glacier.

DRAINAGE AREA.--1,180 mi² (3,060 km²), approximately.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR AK-77-1: 1974-75 (M).

GAGE.--Water-stage recorder. Datum of gage is 30.2 ft (9.20 m) National Geodetic Vertical Datum of 1929. Prior to June 27, 1960, nonrecording gage, and June 27, 1960 to Apr. 25, 1974, water-stage recorder at old bridge 100 ft (30 m) upstream at present datum. Apr. 26, 1974 to Apr. 18, 1976, nonrecording gage at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, Nov. 6 to Apr. 2, which are poor. Flood peaks due to outbreak of Lake George, 1948-62, 1964, 1965, published in WSP 1936. Streamflow augmented by glaciers, which cover 54 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 6,848 ft³/s (193.9 m³/s), 78.82 in/yr (2,002 mm/yr), 4,961,000 acre-ft/yr (6.12 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355,000 ft³/s (10,100 m³/s) July 26, 1961, gage height, 24.3 ft (7.41 m), caused by release of stored water (Lake George) behind Knik Glacier; maximum gage height, 24.35 ft (7.422 m) July 17, 1960; minimum daily discharge, about 260 ft³/s (7.4 m³/s) Mar. 1-31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1948, 359,000 ft³/s (10,200 m³/s) July 18, 1958, stage, 25.30 ft (7.711 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,500 ft³/s (920 m³/s) Aug. 3, gage height, 10.83 ft (3.301 m); minimum daily, about 600 ft³/s (17 m³/s) Jan. 6-15 and Feb. 3-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6730	2170	800	650	650	950	1200	1970	6700	13400	26900	13400
2	5960	2000	800	650	650	950	1300	2170	6760	13400	29100	13400
3	5240	1900	800	650	600	950	1300	2290	6700	14000	30900	13000
4	4910	1800	800	650	600	900	1300	2750	6980	15000	29500	13400
5	4580	1700	750	650	600	900	1300	2960	7360	14000	28100	14800
6	4160	1600	750	600	600	850	1300	3070	7290	15000	24800	16000
7	4210	1500	750	600	600	850	1300	2890	7740	16000	26500	14700
8	4260	1400	750	600	600	850	1300	3050	8820	16000	27900	13600
9	4640	1300	750	600	600	850	1300	3350	10600	15000	27000	13400
10	6030	1200	750	600	600	850	1300	3300	13000	14000	28000	13000
11	6730	1200	700	600	650	900	1300	3670	12700	14000	29400	12400
12	8060	1100	700	600	650	900	1300	3930	13100	15000	29300	13200
13	7150	1100	700	600	650	900	1300	4340	14100	17000	27300	21500
14	6560	1100	700	600	650	950	1300	4210	14600	19000	26000	26300
15	6760	1000	700	600	700	950	1300	4910	15300	18000	24000	23700
16	6140	1000	700	650	700	950	1300	4730	16500	16000	23000	18300
17	5820	1000	700	650	700	950	1380	4240	15100	17000	20500	14400
18	4970	950	700	650	750	950	1390	4370	13600	19000	18900	13300
19	4240	950	700	650	750	1000	1390	4340	13000	21000	19600	12700
20	3980	950	700	650	800	1000	1390	4210	12500	23000	21700	9980
21	4290	900	650	650	800	1000	1400	4340	12800	24000	21400	8740
22	4320	900	650	650	800	1000	1500	4670	12900	25000	18600	7740
23	4320	900	650	700	850	1000	1560	4470	16200	22000	17900	6870
24	3900	900	650	700	850	1000	1580	5060	15200	20100	17100	6200
25	3510	850	650	700	900	1000	1620	5390	14500	19700	16300	6240
26	3160	850	650	700	900	1000	1720	5750	14100	18500	15900	6310
27	2960	850	650	700	900	1000	1970	5450	14200	18300	15000	6060
28	2840	850	650	700	900	1100	1990	5600	13300	18800	14800	5690
29	2750	800	650	700	---	1100	2010	5720	13400	19700	14500	5270
30	2770	800	650	650	---	1200	2150	6240	14400	21600	13500	4760
31	2310	---	650	650	---	1200	---	5920	---	24200	13600	---
TOTAL	148260	35520	21850	20000	20000	29950	43750	129360	363450	556700	697000	368360
MEAN	4783	1184	705	645	714	966	1458	4173	12120	17960	22480	12280
MAX	8060	2170	800	700	900	1200	2150	6240	16500	25000	30900	26300
MIN	2310	800	650	600	600	850	1200	1970	6700	13400	13500	4760
CFSM	4.05	1.00	.60	.55	.61	.82	1.24	3.54	10.3	15.2	19.1	10.4
IN.	4.67	1.12	.69	.63	.63	.94	1.38	4.08	11.46	17.55	21.97	11.61
AC-FT	294100	70450	43340	39670	39670	59410	86780	256600	720900	1104000	1382000	730600

CAL YR 1977 TOTAL 3003750 MEAN 8229 MAX 39600 MIN 650 CFSM 6.97 IN 94.69 AC-FT 5958000
WTR YR 1978 TOTAL 2434200 MEAN 6669 MAX 30900 MIN 600 CFSM 5.65 IN 76.74 AC-FT 4828000

15282000 CARIBOU CREEK NEAR SUTTON

LOCATION.--Lat 61°48'12", long 147°40'57", in SE¼ sec.20, T.20 N., R.10 E., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on left pier of bridge on Glenn Highway, 1.4 mi (2.3 km) downstream from Dan Creek, 1.8 mi (2.9 km) upstream from mouth, and 40 mi (64 km) east of Sutton.

DRAINAGE AREA.--289 mi² (749 km²).

PERIOD OF RECORD.--May 1955 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,767 ft (538.6 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 17 to May 3, which are poor. Large diurnal fluctuations at times each year caused by snowmelt. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 297 ft³/s (8.411 m³/s), 13.96 in/yr (355 mm/yr), 215,200 acre-ft/yr (265 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,720 ft³/s (247 m³/s) June 15, 1973, gage height, 7.18 ft (2.188 m); maximum gage height, 8.52 ft (2.597 m) Oct. 17, 1977, backwater from ice; no flow Mar. 16 to Apr. 10, 1966 and Mar. 10-18, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) June 7, gage height, 4.80 ft (1.463 m), only peak above base of 2,000 ft³/s (57 m³/s); maximum gage height, 8.52 ft (2.597 m) Oct. 17, backwater from ice; minimum daily discharge, about 17 ft³/s (0.5 m³/s) Mar. 22 to Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	80	42	34	26	20	17	50	383	507	462	239
2	181	80	42	32	26	20	18	50	458	674	420	233
3	197	75	42	32	26	20	18	60	681	564	389	228
4	185	75	42	32	26	20	18	80	904	568	384	219
5	184	75	40	32	26	20	18	100	943	574	392	232
6	179	70	40	32	24	20	18	130	985	523	427	228
7	175	70	40	32	24	20	18	170	1590	458	374	226
8	170	65	40	32	24	19	19	220	1250	447	386	218
9	162	65	40	32	24	19	19	280	1210	438	360	213
10	156	65	40	30	24	19	19	331	1140	456	342	209
11	154	60	38	30	24	19	19	440	1170	434	353	210
12	151	60	38	30	24	19	19	547	1140	434	375	213
13	148	60	38	30	24	18	20	699	903	582	394	214
14	140	60	38	30	24	18	20	796	745	640	434	214
15	130	55	38	30	24	18	20	876	850	629	442	208
16	125	55	38	30	22	18	20	662	632	516	404	209
17	120	55	38	30	22	18	20	420	368	448	445	203
18	120	50	36	28	22	18	20	325	330	404	403	198
19	120	50	36	28	22	18	22	311	341	406	375	203
20	110	50	36	28	22	18	22	348	371	408	364	213
21	110	48	36	28	22	18	24	482	375	384	352	205
22	110	48	36	28	22	17	24	605	866	409	332	200
23	100	46	36	28	22	17	26	535	814	424	317	187
24	100	46	36	28	22	17	26	605	435	405	304	195
25	95	46	34	28	22	17	28	490	352	571	289	192
26	95	44	34	28	22	17	30	463	388	816	277	192
27	90	44	34	28	22	17	30	367	437	1080	270	192
28	90	44	34	26	20	17	35	383	732	878	261	189
29	85	44	34	26	---	17	40	359	610	711	256	206
30	85	42	34	26	---	17	40	369	523	593	251	179
31	80	---	34	26	---	17	---	353	---	516	245	---
TOTAL	4124	1727	1164	914	654	567	687	11906	21926	16877	11079	6267
MEAN	133	57.6	37.5	29.5	23.4	18.3	22.9	384	731	544	357	209
MAX	197	80	42	34	26	20	40	876	1590	1080	462	239
MIN	80	42	34	26	20	17	17	50	330	384	245	179
CFSM	.46	.20	.13	.10	.08	.06	.08	1.33	2.53	1.88	1.24	.72
IN.	.53	.22	.15	.12	.08	.07	.09	1.53	2.82	2.17	1.43	.81
AC-FT	8180	3430	2310	1810	1300	1120	1360	23620	43490	33480	21980	12430

CAL YR 1977 TOTAL 125284 MEAN 343 MAX 2940 MIN 22 CFSM 1.19 IN 16.13 AC-FT 248500
WTR YR 1978 TOTAL 77892 MEAN 213 MAX 1590 MIN 17 CFSM .74 IN 10.03 AC-FT 154500

15290000 LITTLE SUSITNA RIVER NEAR PALMER

LOCATION.--Lat 61°42'32", long 149°13'36", in NW¼ sec.26, T.19 N., R.1 E., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on right bank 40 ft (12 m) downstream from highway bridge on Wasilla-Fishhook Road, 1.5 mi (2.4 km) north of road junction, 1.8 mi (2.9 km) downstream from unnamed tributary, and 8 mi (13 km) northwest of Palmer.

DRAINAGE AREA.--61.9 mi² (160.3 km²).

PERIOD OF RECORD.--July 1948 to current year. Low-flow records not equivalent prior to January 1962, because most measurements below 300 ft³/s (8 m³/s) were made at site 3.4 mi (5.6 km) downstream.

GAGE.--Water-stage recorder. Datum of gage is 918.6 ft (279.99 m) National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Aug. 16, 1948, nonrecording gage and Aug. 17, 1948 to May 15, 1972, water-stage recorder on left bank. Prior to Oct. 1, 1974, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those between 30 ft³/s (0.8 m³/s) and 300 ft³/s (8 m³/s), which are good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 201 ft³/s (5.692 m³/s), 44.10 in/yr (1,120 mm/yr), 145,600 acre-ft/yr (180 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,840 ft³/s (222 m³/s) Aug. 10, 1971, gage height, 9.84 ft (2.999 m) in gage well, 12.30 ft (3.749 m), top of needle peak in gage well, about 13 ft (4.0 km) from floodmarks, present datum, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of slope-area measurement of peak flow; minimum daily, about 8 ft³/s (0.23 m³/s) Apr. 1-20, 1956 and Mar. 11, 12, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) June 22, gage height, 5.84 ft (1.780 m), no peak above base of 1,200 ft³/s (34 m³/s); minimum, 15 ft³/s (0.42 m³/s) Mar. 24, but may have been less during period of no gage-height record Mar. 4-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	76	54	35	25	24	25	41	172	432	332	162
2	389	74	54	35	25	24	24	46	174	386	320	140
3	347	72	54	35	25	23	25	57	174	365	301	139
4	314	70	54	35	25	23	25	64	198	410	303	131
5	286	70	54	34	25	23	24	65	208	386	279	196
6	265	68	52	34	25	22	24	56	212	353	255	298
7	243	68	52	33	25	22	22	55	320	347	243	214
8	219	66	52	33	25	22	23	67	362	335	241	192
9	205	66	52	33	25	22	24	66	341	329	250	181
10	196	64	52	32	25	21	22	69	464	317	255	174
11	187	64	52	30	25	21	22	112	540	314	255	167
12	176	62	52	30	25	21	22	144	496	303	229	163
13	180	62	54	30	25	21	22	176	404	277	210	160
14	171	60	56	30	25	20	23	235	486	395	241	147
15	172	60	56	28	25	20	24	228	522	338	236	140
16	156	60	56	28	25	20	22	178	478	386	205	139
17	153	58	54	28	25	19	23	144	386	368	199	136
18	131	58	52	28	25	18	25	144	332	347	198	123
19	124	58	50	26	25	18	27	156	329	344	203	128
20	142	58	48	26	25	18	28	142	347	435	457	123
21	131	56	46	26	25	17	29	174	329	504	332	126
22	124	56	44	26	25	17	29	198	723	522	253	126
23	116	56	42	25	25	17	32	180	678	468	231	116
24	112	56	40	25	25	16	31	185	543	416	207	112
25	108	56	40	25	25	16	31	181	504	416	181	108
26	106	54	39	25	25	16	32	234	489	389	178	105
27	104	54	37	25	24	16	29	180	525	374	176	103
28	102	54	37	25	24	16	28	167	493	365	165	100
29	99	54	36	25	---	18	31	148	453	350	155	98
30	96	54	36	25	---	20	35	150	489	329	147	94
31	90	---	35	25	---	22	---	158	---	332	144	---
TOTAL	5686	1844	1492	900	698	613	783	4200	12171	11632	7381	4321
MEAN	183	61.5	48.1	29.0	24.9	19.8	26.1	135	406	375	238	144
MAX	442	76	56	35	25	24	35	235	723	522	457	298
MIN	90	54	35	25	24	16	22	41	172	277	144	94
CFSM	2.96	.99	.78	.47	.40	.32	.42	2.18	6.56	6.06	3.85	2.33
IN.	3.42	1.11	.90	.54	.42	.37	.47	2.52	7.31	6.99	4.44	2.60
AC-FT	11280	3660	2960	1790	1380	1220	1550	8330	24140	23070	14640	8570

CAL YR 1977 TOTAL 94956 MEAN 260 MAX 1660 MIN 19 CFSM 4.20 IN 57.06 AC-FT 188300
WTR YR 1978 TOTAL 51721 MEAN 142 MAX 723 MIN 16 CFSM 2.29 IN 31.08 AC-FT 102600

15291000 SUSITNA RIVER NEAR DENALI

LOCATION.--Lat 63°06'14", long 147°30'57", in NE¼ sec.10, T.21 S., R.1 E., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on upstream right pier of bridge on Denali Highway, 0.2 mi (0.3 km) downstream from Windy Creek, 3.3 mi (5.3 km) upstream from Butte Creek, and 5.3 mi (8.5 km) southwest of Denali.

DRAINAGE AREA.--950 mi^2 (2,460 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1957 to September 1966, July 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,440 ft (744 m), from topographic map. See WSP 2136 for history of changes prior to July 4, 1968. July 4, 1968 to Aug. 28, 1974, on left upstream wingwall, at present datum.

REMARKS.--Water-discharge records fair except those for period of no gage-height record, Oct. 15 to May 17, which are poor. Streamflow augmented by glaciers, which cover 25 percent of the basin.

AVERAGE DISCHARGE.--19 years (water years 1958-66, 1969-78), 2,707 ft^3/s (76.66 m^3/s), 38.70 in/yr (983 mm/yr), 1,961,000 acre-ft/yr (2.42 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,200 ft^3/s (1,080 m^3/s) Aug. 10, 1971, gage height, 13.32 ft (4.060 m) from rating curve extended above 19,000 ft^3/s (540 m^3/s); maximum gage height, 13.58 ft (4.139 m) May 11, 1970, backwater from ice; minimum daily discharge, about 34 ft^3/s (0.96 m^3/s) Mar. 16-31, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 14 or 15, 1967 reached a stage of 12.7 ft (3.87 m), from floodmarks, discharge, 28,200 ft^3/s (799 m^3/s), from rating curve extended above 19,000 ft^3/s (540 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,200 ft^3/s (459 m^3/s) Aug. 3, gage height, 11.78 ft (3.591 m); only peak above base of 14,000 ft^3/s (400 m^3/s); minimum daily, about 230 ft^3/s (6.5 m^3/s) Apr. 1-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	840	480	380	320	260	230	400	3040	5450	13100	5650
2	1700	820	480	380	320	260	230	400	2950	6320	13600	5200
3	1600	800	480	380	320	260	230	500	2800	5800	13600	6260
4	1500	800	480	360	320	260	230	500	3070	7400	13700	6680
5	1400	780	480	360	320	260	230	700	3220	9420	13100	6260
6	1200	760	480	360	320	260	230	900	3250	10300	12400	7910
7	1340	760	460	360	320	260	230	1200	3640	10100	10700	6080
8	1300	740	460	360	320	260	230	1600	4950	8610	9660	4900
9	1180	740	460	360	300	260	240	2200	5400	8260	10100	4900
10	1230	720	460	360	300	240	240	2500	5600	9660	10900	4900
11	1330	700	460	360	300	240	240	2700	6320	10400	10900	5650
12	1180	680	460	360	300	240	240	2900	7340	11000	10400	5100
13	1180	680	440	360	300	240	240	2700	8330	9420	8820	4580
14	1150	660	440	360	300	240	240	2500	7520	9100	7840	3340
15	1100	660	440	360	300	240	240	2300	6680	9500	6860	2980
16	1100	640	440	340	300	240	260	2200	7160	9500	6980	3220
17	1050	640	440	340	300	240	260	2150	6320	8470	6080	3070
18	1050	620	440	340	300	240	260	2130	4740	8470	6500	2600
19	1050	620	420	340	300	240	260	2260	4260	8610	7280	2210
20	1000	600	420	340	300	240	260	2260	4540	9500	10100	2080
21	1000	600	420	340	280	240	280	2290	4380	8470	9340	1900
22	980	600	420	340	280	240	280	2420	4420	7520	6020	1800
23	960	550	420	340	280	240	280	2340	6080	7280	5960	1700
24	940	550	420	340	280	240	280	2390	6620	7910	5550	1600
25	940	550	400	340	280	240	300	2520	6620	8190	5600	1500
26	920	500	400	320	280	240	300	2630	5850	8540	5350	1450
27	900	500	400	320	280	240	300	2770	5900	9980	5250	1400
28	900	500	400	320	280	240	350	2580	5850	10800	5650	1300
29	880	480	400	320	---	240	350	2550	5550	11100	5960	1250
30	860	480	400	320	---	240	350	2690	5100	11700	5550	1200
31	860	---	400	320	---	240	---	2770	---	12000	5100	---
TOTAL	35580	19570	13600	10780	8400	7620	7890	62950	157500	278780	267950	108670
MEAN	1148	652	439	348	300	246	263	2031	5250	8993	8644	3622
MAX	1800	840	480	380	320	260	350	2900	8330	12000	13700	7910
MIN	860	480	400	320	280	240	230	400	2800	5450	5100	1200
CFSM	1.21	.69	.46	.37	.32	.26	.28	2.14	5.53	9.47	9.10	3.81
IN.	1.39	.77	.53	.42	.33	.30	.31	2.46	6.17	10.92	10.49	4.26
AC-FT	70570	38820	26980	21380	16660	15110	15650	124900	312400	553000	531500	215500

CAL YR 1977 TOTAL 1129370 MEAN 3094 MAX 14300 MIN 230 CFSM 3.26 IN 44.22 AC-FT 2240000
WTR YR 1978 TOTAL 979290 MEAN 2683 MAX 13700 MIN 230 CFSM 2.82 IN 38.35 AC-FT 1942000

15291000 SUSITNA RIVER NEAR DENALI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-66, 1968-69, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1974 to current year (seasonal).

INSTRUMENTATION.--Temperature recorder since Aug. 29, 1974.

REMARKS.--No record Nov. 3 to May 17 when temperature sensor froze in ice.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 11.0°C June 11, 1977; minimum, 0.0°C on most days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 10.5°C June 7, 8; minimum, 0.0°C on most days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR				
28...	1630	236	8	5.1
MAY				
18...	1430	2280	178	1100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.5	1.5	1.5	1.5								
2	1.5	1.5	2.5	1.5								
3	2.0	1.5	2.0	2.0								
4	2.0	1.5	2.0	2.0								
5	2.0	1.5	2.5	2.0								
6	1.5	1.5	2.5	2.0								
7	2.0	2.0	2.0	2.0								
8	2.5	2.0	3.5	2.0								
9	2.5	2.0	---	---								
10	2.5	2.0	---	---								
11	2.5	2.5	---	---								
12	2.5	1.5	---	---								
13	1.5	1.5	---	---								
14	1.5	1.5	---	---								
15	1.5	1.5	---	---								
16	1.5	1.5	---	---								
17	1.5	1.5	---	---								
18	1.5	1.5	---	---								
19	2.0	1.5	---	---								
20	2.0	1.5	---	---								
21	1.5	1.5	---	---								
22	1.5	1.5	---	---								
23	1.5	1.5	---	---								
24	1.5	1.5	---	---								
25	1.5	1.5	---	---								
26	1.5	1.5	---	---								
27	1.5	1.5	---	---								
28	1.5	1.5	---	---								
29	1.5	1.5	---	---								
30	1.5	1.5	---	---								
31	1.5	1.5	---	---								
MONTH	2.5	1.5										

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	9.5	6.5	8.5	6.5	9.0	5.0	6.5	4.5
2			---	---	9.5	6.5	9.0	6.5	7.5	5.0	6.0	4.5
3			---	---	10.0	6.5	9.0	7.0	8.0	4.5	6.0	4.5
4			---	---	10.0	7.5	8.5	6.5	8.0	4.5	5.5	4.5
5			---	---	9.5	7.0	7.5	6.5	7.0	4.5	5.0	4.5
6			---	---	9.0	6.5	8.5	6.0	7.0	5.0	5.5	4.5
7			---	---	10.5	7.5	8.5	6.0	7.0	4.5	5.5	3.5
8			---	---	10.5	6.5	7.5	5.5	7.0	5.0	6.0	4.5
9			---	---	9.5	7.0	10.0	5.5	7.0	4.5	6.0	3.5
10			---	---	9.5	6.5	10.0	6.0	7.0	4.5	6.0	5.0
11			---	---	9.5	6.5	9.5	6.0	7.0	5.0	5.0	4.5
12			---	---	9.0	7.0	8.5	6.0	6.5	5.0	5.5	4.0
13			---	---	8.0	6.0	7.5	5.5	6.5	4.5	6.0	5.0
14			---	---	8.0	5.5	7.5	5.5	6.0	4.5	5.0	3.5
15			---	---	6.5	5.5	6.5	5.0	7.5	4.5	5.5	4.0
16			---	---	6.5	5.0	6.5	5.5	7.5	4.5	5.5	5.0
17			---	---	7.0	5.5	7.5	5.5	8.0	4.5	5.0	3.5
18			6.0	3.5	7.5	6.0	8.5	5.5	8.0	4.5	5.0	4.5
19			7.0	4.0	7.0	6.0	8.5	6.0	8.0	4.0	5.0	4.0
20			8.0	4.5	10.0	5.5	6.5	5.0	7.0	5.0	5.0	4.5
21			8.5	4.5	10.0	7.5	6.5	5.0	6.5	4.5	---	---
22			9.0	5.5	9.0	7.5	6.5	5.5	8.0	5.0	---	---
23			6.5	5.5	8.0	7.0	8.5	4.5	8.0	4.5	---	---
24			6.5	6.0	7.0	6.0	8.5	5.5	7.5	4.5	---	---
25			7.0	6.0	7.0	6.0	9.0	5.5	7.5	4.0	---	---
26			7.0	6.0	8.0	6.5	9.0	5.0	7.0	4.0	---	---
27			9.5	5.0	10.0	7.0	9.0	5.0	7.5	4.0	---	---
28			9.5	6.5	10.0	7.0	8.5	4.5	7.5	4.5	---	---
29			8.0	6.0	10.0	7.5	8.5	5.0	7.0	4.0	---	---
30			9.5	6.0	8.0	7.0	8.5	4.5	6.5	4.0	---	---
31			9.5	7.0	---	---	9.0	4.5	6.5	4.0	---	---
MONTH			9.5		10.5	5.0	10.0	4.5	9.0	4.0	6.5	
YEAR	10.5											

15291200 MACLAREN RIVER NEAR PAXSON

LOCATION.--Lat 63°07'10", long 146°31'45", Matanuska-Susitna Borough, Hydrologic Unit 19050002, near left bank on downstream side of bridge on Denali Highway, 1.5 mi (2.4 km) downstream from Boulder Creek, and 34 mi (55 km) west of Paxson.

DRAINAGE AREA.--280 mi² (730 km²), approximately.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,865.84 ft (873.508 m) National Geodetic Vertical Datum (Alaska Department of Public Works bench mark). See WSP 2136 for history of changes prior to Aug. 23, 1968.

REMARKS.--Records good except those for period of no gage-height record, Oct. 1 to May 5, which are poor. Streamflow augmented by Maclaren Glacier, which covers 19 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 980 ft³/s (27.75 m³/s), 47.53 in/yr (1,207 mm/yr), 710,000 acre-ft/yr (875 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,260 ft³/s (262 m³/s) Aug. 11, 1971, gage height, 8.24 ft (2.512 m), from rating curve extended above 5,300 ft³/s (150 m³/s); maximum gage height, 9.10 ft (2.774 m) in May 1964, from floodmarks, backwater from ice; minimum daily discharge, about 40 ft³/s (1.1 m³/s) Mar. 1-25, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,090 ft³/s (116 m³/s) July 11, gage height, 5.42 ft (1.652 m), no peak above base of 4,200 ft³/s (120 m³/s); minimum daily, about 120 ft³/s (3.4 m³/s) Mar. 5 to Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	360	200	170	150	130	120	150	1490	2850	3680	1460
2	700	340	200	170	150	130	120	150	1350	2730	3560	1400
3	650	340	200	170	150	130	120	150	1220	2690	3470	1660
4	650	320	200	170	150	130	120	150	1340	3060	3640	1730
5	650	320	190	170	150	120	120	150	1490	3270	3250	1530
6	650	320	190	170	150	120	130	150	1680	3340	3180	1490
7	600	300	190	170	150	120	130	150	2250	3290	3070	1430
8	600	300	190	170	140	120	130	170	2530	3100	2950	1350
9	600	300	190	170	140	120	130	200	2580	3300	2850	1300
10	600	300	190	170	140	120	130	240	2760	3650	3000	1230
11	550	280	190	170	140	120	130	280	2880	3850	2930	1310
12	550	280	190	170	140	120	130	320	3170	3850	2880	1250
13	550	280	190	160	140	120	130	380	3240	3420	2580	1090
14	550	260	190	160	140	120	130	440	2890	3290	2590	915
15	500	260	190	160	140	120	130	500	2600	3210	2400	803
16	500	260	190	160	140	120	130	600	3020	3590	2240	767
17	480	260	190	160	140	120	140	700	2630	3220	2010	724
18	480	240	180	160	140	120	140	800	2120	3040	2020	597
19	460	240	180	160	140	120	140	900	1980	3050	2010	571
20	460	240	180	160	140	120	140	1000	1850	3500	2240	540
21	440	240	180	160	130	120	140	1200	1700	3380	1970	533
22	440	220	180	160	130	120	140	1400	1920	3320	1640	520
23	420	220	180	160	130	120	140	1500	2620	3000	1470	500
24	420	220	180	160	130	120	140	1500	2610	2900	1450	480
25	400	220	180	160	130	120	140	1420	2710	2810	1400	460
26	400	220	180	150	130	120	140	1350	2860	2870	1370	440
27	400	220	180	150	130	120	140	1280	2680	2900	1400	420
28	380	200	180	150	130	120	150	1190	2540	2870	1450	420
29	380	200	180	150	---	120	150	1150	2420	3050	1500	400
30	360	200	180	150	---	120	150	1130	2380	3210	1450	400
31	360	---	170	150	---	120	---	1270	---	3480	1390	---
TOTAL	15880	7960	5780	5020	3910	3760	4020	21970	69510	99090	73040	27720
MEAN	512	265	186	162	140	121	134	709	2317	3196	2356	924
MAX	700	360	200	170	150	130	150	1500	3240	3850	3680	1730
MIN	360	200	170	150	130	120	120	150	1220	2690	1370	400
CFSM	1.83	.95	.66	.58	.50	.43	.48	2.53	8.28	11.4	8.41	3.30
IN.	2.11	1.06	.77	.67	.52	.50	.53	2.92	9.23	13.16	9.70	3.68
AC-FT	31500	15790	11460	9960	7760	7460	7970	43580	137900	196500	144900	54980

CAL YR 1977 TOTAL 433400 MEAN 1187 MAX 4960 MIN 90 CFSM 4.24 IN 57.58 AC-FT 859600
WTR YR 1978 TOTAL 337660 MEAN 925 MAX 3850 MIN 120 CFSM 3.30 IN 44.86 AC-FT 669700

15292000 SUSITNA RIVER AT GOLD CREEK

LOCATION.--Lat 62°46'04", long 149°41'28", in NW¼ sec.20, T.31 N., R.2 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, near left bank under Alaska Railroad bridge, 0.1 mi (0.2 km) downstream from Gold Creek, 0.9 mi (1.4 km) north of Gold Creek railroad station, and 2.0 mi (3.2 km) downstream from Indian River.

DRAINAGE AREA.--6,160 mi² (15,950 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 676.50 ft (296.197 m) National Geodetic Vertical Datum of 1929. Prior to June 6, 1957, nonrecording gage at same site and datum. June 7, 1957 to June 2, 1964, water-stage recorder at site 0.3 mi (0.5 km) upstream at same datum.

REMARKS.--Water-discharge records good except those for Oct. 15 to May 15, which are poor.

AVERAGE DISCHARGE.--29 years, 9,616 ft³/s (272.3 m³/s), 21.20 in/yr (538 mm/yr), 6,967,000 acre-ft/yr (8.59 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,700 ft³/s (2,570 m³/s) June 7, 1964, gage height, 16.58 ft (5.054 m); maximum gage height observed, 24.48 ft (7.462 m) May 10, 1954, ice jam; minimum daily discharge, about 600 ft³/s (17.0 m³/s) Feb. 16-20, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 25,000 ft³/s (708 m³/s) June 23, gage height, 10.72 ft (3.267 m), but may have been more during the period of no gage-height record May 10-15; minimum daily, about 1,600 ft³/s (45 m³/s) Feb. 25 to Mar. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11000	4500	2900	2300	1800	1600	1650	2500	12900	20800	19800	10400
2	9590	4400	2850	2250	1750	1600	1650	3200	13800	22400	20600	10500
3	8860	4300	2800	2250	1750	1600	1650	4200	13400	22500	20800	10200
4	8470	4200	2800	2200	1750	1600	1650	5200	13200	21000	20600	10500
5	8040	4100	2750	2200	1700	1600	1650	6200	13800	21800	20900	11300
6	7800	4000	2750	2150	1700	1600	1650	8000	13900	24100	20800	11800
7	8040	3900	2750	2150	1700	1600	1650	10000	15400	23600	19800	12400
8	8470	3800	2750	2150	1700	1600	1650	11800	18500	22100	19100	11800
9	8580	3700	2700	2100	1700	1600	1650	13100	19500	20400	17400	10300
10	8860	3650	2700	2100	1650	1600	1650	14000	21100	19400	17600	10100
11	9100	3650	2650	2100	1650	1600	1650	15000	20300	19800	18200	10200
12	9310	3600	2650	2100	1650	1600	1650	16000	21200	20300	19100	10600
13	9280	3550	2650	2050	1650	1600	1650	17000	23100	21500	20200	10800
14	9100	3500	2600	2050	1650	1600	1650	18200	22200	21600	19800	9730
15	8900	3450	2600	2000	1650	1600	1650	19500	21500	22400	18000	9030
16	8600	3400	2600	2000	1650	1600	1650	20500	20200	21500	16600	8160
17	8200	3350	2600	2000	1650	1600	1650	18000	20300	21600	15900	8100
18	7800	3300	2600	2000	1650	1600	1650	14600	18600	20400	14800	7860
19	7500	3300	2600	2000	1650	1600	1650	12200	16600	19400	13900	7290
20	7200	3250	2550	1950	1650	1600	1650	11100	16600	20400	15600	7230
21	6900	3250	2550	1950	1650	1600	1650	11200	16000	21000	18600	7350
22	6600	3200	2500	1950	1650	1600	1650	11800	16700	21000	17400	7200
23	6300	3150	2500	1950	1650	1600	1650	11400	23200	20800	13900	6650
24	6100	3150	2450	1900	1650	1600	1700	11700	22200	20400	12600	6210
25	5900	3100	2400	1900	1600	1600	1700	11800	22300	19800	11800	6000
26	5700	3100	2400	1900	1600	1600	1800	12200	23000	20200	11300	5700
27	5400	3050	2350	1900	1600	1600	1800	12700	24300	20600	10800	5500
28	5100	3000	2350	1850	1600	1600	1900	12200	24100	21100	10400	5300
29	4800	2950	2300	1850	---	1650	2000	11600	22800	20500	10500	5100
30	4600	2900	2300	1850	---	1650	2200	11400	20800	19800	10700	4900
31	4600	---	2300	1800	---	1650	---	12000	---	19400	10700	---
TOTAL	234700	105750	80250	62900	46700	49750	51050	370300	571500	651600	508200	258220
MEAN	7571	3525	2589	2029	1668	1605	1702	11950	19050	21020	16390	8607
MAX	11000	4500	2900	2300	1800	1650	2200	20500	24300	24100	20900	12400
MIN	4600	2900	2300	1800	1600	1600	1650	2500	12900	19400	10400	4900
CFSM	1.23	.57	.42	.33	.27	.26	.28	1.94	3.09	3.41	2.66	1.40
IN.	1.42	.64	.48	.38	.28	.30	.31	2.24	3.45	3.93	3.07	1.56
AC-FT	465500	209800	159200	124800	92630	98680	101300	734500	1134000	1292000	1008000	512200

CAL YR 1977 TOTAL 3835880 MEAN 10510 MAX 52600 MIN 1500 CFSM 1.71 IN 23.16 AC-FT 7608000
WTR YR 1978 TOTAL 2990920 MEAN 8194 MAX 24300 MIN 1600 CFSM 1.33 IN 18.06 AC-FT 5932000

NOTE.--No gage-height record Mar. 16 to May 15.

15292000 SUSITNA RIVER AT GOLD CREEK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1962, 1967-68, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1957, July 1974 to current year (seasonal).
SUSPENDED-SEDIMENT DISCHARGE: May to September 1952, June to September 1957.

INSTRUMENTATION.--Temperature recorder since July 30, 1974.

REMARKS.--No record prior to June 14, July 10 to Aug. 13, and Sept. 25-30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT											
04...	1600	--	8500	150	7.4	9.0	--	12	747	12.6	57
04...	1601	400	--	120	--	--	3.8	--	--	--	--
04...	1602	300	--	140	--	--	3.5	--	--	--	--
04...	1603	200	--	150	--	--	3.0	--	--	--	--
04...	1604	100	--	155	--	--	3.1	--	--	--	--

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
04...	20	18	3.0	6.5	1.4	45	0	14	11	.1	8.6
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT											
04...	76	85	.11	.00	500	1	200	<10	0	<10	850
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT										
04...	40	<100	20	0	.2	7	<50	0	<10	30
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--

15292000 SUSITNA RIVER AT GOLD CREEK--Continued

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT							
04...	1600	8500	22	505	--	--	--
MAR							
29...	1200	1650	1	4.5	--	--	--
MAY							
17...	0930	19700	498	26500	4	5	8
JUN							
14...	1800	22800	690	42500	--	--	--
AUG							
08...	1500	19000	938	48100	16	19	29
SEP							
24...	1640	6340	23	394	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
04...	--	--	--	--	--	--	--
MAR							
29...	--	--	--	--	--	--	--
MAY							
17...	11	17	29	49	78	96	100
JUN							
14...	--	--	--	--	--	--	--
AUG							
08...	41	54	67	77	88	97	100
SEP							
24...	--	--	--	--	--	--	--

TEMPERATURE (DEG. C) OF WATER, JUNE TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	10.5	9.5	---	---	11.5	10.5
2					---	---	11.0	10.0	---	---	12.0	10.0
3					---	---	11.0	10.0	---	---	12.0	10.5
4					---	---	11.5	10.5	---	---	11.5	10.0
5					---	---	12.0	11.5	---	---	10.5	9.5
6					---	---	11.5	10.5	---	---	10.5	9.0
7					---	---	12.0	10.5	---	---	9.5	8.5
8					---	---	12.5	10.5	---	---	10.0	8.5
9					---	---	11.5	10.5	---	---	9.5	9.0
10					---	---	---	---	---	---	9.5	9.0
11					---	---	---	---	---	---	10.0	9.0
12					---	---	---	---	---	---	9.5	9.0
13					---	---	---	---	---	---	9.0	8.0
14					---	---	---	---	11.5	11.0	8.5	7.5
15					10.0	9.5	---	---	12.5	11.0	8.5	7.5
16					9.5	8.5	---	---	12.0	11.5	9.0	7.5
17					8.5	7.5	---	---	12.5	11.0	8.5	7.5
18					7.5	7.5	---	---	12.0	10.5	8.5	7.5
19					8.5	7.5	---	---	12.0	11.0	8.0	7.0
20					10.0	7.5	---	---	11.5	10.5	7.5	7.0
21					10.5	8.0	---	---	11.5	10.5	7.0	6.0
22					10.0	9.0	---	---	11.0	9.5	6.5	5.5
23					9.5	8.5	---	---	11.0	9.5	6.0	5.0
24					9.0	8.0	---	---	12.0	10.0	5.0	4.5
25					8.5	8.0	---	---	11.5	9.5	---	---
26					9.0	8.0	---	---	11.5	9.5	---	---
27					10.0	8.0	---	---	11.0	9.5	---	---
28					10.0	5.5	---	---	11.0	9.5	---	---
29					11.0	10.0	---	---	11.5	10.0	---	---
30					11.0	9.5	---	---	11.0	10.0	---	---
31					---	---	---	---	11.0	9.5	---	---
MONTI					11.0	7.5	12.5	9.5	12.5	9.5	12.0	4.5

15292700 TALKEETNA RIVER NEAR TALKEETNA
(Hydrologic bench-mark station)

LOCATION.--Lat 62°20'49", long 150°01'01", in NE¼ sec.16, T.26 N., R.4 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on left bank 1.7 mi (2.7 km) downstream from Chunilna Creek, 3.5 mi (5.6 km) northeast of Talkeetna, and about 5 mi (8 km) above mouth.

DRAINAGE AREA.--2,006 mi^2 (5,196 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (120 m), from topographic map.

REMARKS.--Water-discharge records fair except those for Oct. 8 to Jan. 20 and Apr. 10 to May 12, which are poor.

AVERAGE DISCHARGE.--14 years, 4,000 ft^3/s (113.3 m^3/s), 27.08 in/yr (688 mm/yr), 2,898,000 acre-ft/yr (3.57 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,400 ft^3/s (1,910 m^3/s) Aug. 10, 1971, gage height, 16.35 ft (4.983 m); minimum daily, about 380 ft^3/s (10.8 m^3/s) Feb. 21 to Apr. 10, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,400 ft^3/s (493 m^3/s) July 7, gage height, 8.94 ft (2.725 m); minimum daily, about 460 ft^3/s (13 m^3/s) Mar. 23-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5400	1550	930	810	650	520	470	700	4800	8800	10500	4070
2	4950	1500	920	810	640	520	470	720	4540	8920	10200	4090
3	4700	1450	910	800	630	520	470	750	5050	8110	9760	4250
4	4500	1400	900	800	620	520	470	770	5480	9280	9600	4150
5	4220	1350	890	790	610	510	470	800	5480	9840	9240	4780
6	3980	1300	890	790	610	510	470	900	5700	11900	8400	6400
7	3860	1250	890	790	600	510	470	1050	8570	14800	8360	5180
8	3700	1200	890	780	600	500	480	1300	8420	11800	8170	4500
9	3500	1200	880	780	590	500	480	1500	8450	10300	8240	4110
10	3600	1150	870	770	580	490	490	1800	8720	9720	8400	4090
11	3600	1150	870	770	580	490	490	2500	8750	9160	8280	4300
12	3700	1150	870	770	580	490	500	3700	9200	9280	7870	4130
13	3800	1100	860	760	570	490	500	4300	7940	10400	7960	4150
14	3900	1100	860	760	570	490	510	4600	8000	11000	8320	3650
15	3800	1050	850	750	560	480	510	4380	8210	11700	7780	3330
16	3600	1050	850	750	560	480	520	3960	7790	10200	7060	3250
17	3500	1050	850	750	560	480	520	3160	6120	9880	6580	3180
18	3300	1000	850	750	560	480	530	2900	5380	9440	6490	3100
19	3200	1000	850	750	560	480	540	2780	5680	9720	6160	3100
20	3000	990	840	740	550	470	550	2940	6350	11400	7090	3000
21	2800	990	840	740	550	470	560	3460	5850	10600	6430	2900
22	2600	990	840	730	550	470	570	3340	8690	11400	5350	2890
23	2500	990	840	720	550	460	580	4140	12900	10600	5080	2900
24	2300	980	840	710	550	460	590	4580	8110	11600	4950	2800
25	2200	970	830	700	540	460	600	4680	7600	13200	4820	2700
26	2100	960	830	700	540	460	610	4750	8170	12100	4600	2600
27	2000	950	830	690	530	460	620	4020	8520	13600	4550	2500
28	1900	940	830	680	530	460	640	3900	8480	12600	4480	2400
29	1800	930	820	670	---	470	660	4120	7870	11400	4400	2300
30	1700	930	820	660	---	470	680	4280	8050	11300	4010	2200
31	1600	---	810	650	---	470	---	4660	---	10500	3890	---
TOTAL	101310	33620	26650	23120	16120	15040	16020	91440	222870	334550	217020	107000
MEAN	3268	1121	860	746	576	485	534	2950	7429	10790	7001	3567
MAX	5400	1550	930	810	650	520	680	4750	12900	14800	10500	6400
MIN	1600	930	810	650	530	460	470	700	4540	8110	3890	2200
CFSM	1.63	.56	.43	.37	.29	.24	.27	1.47	3.70	5.38	3.49	1.78
IN.	1.88	.62	.49	.43	.30	.28	.30	1.70	4.13	6.20	4.02	1.98
AC-FT	200900	66690	52860	45860	31970	29830	31780	181400	442100	663600	430500	212200

CAL YR 1977 TOTAL 1623310 MEAN 4447 MAX 27100 MIN 500 CFSM 2.22 IN 30.10 AC-FT 3220000
WTR YR 1978 TOTAL 1204760 MEAN 3301 MAX 14800 MIN 460 CFSM 1.65 IN 22.34 AC-FT 2390000

Note: No gage-height record Oct. 8 to May 12.

BEST DOCUMENT AVAILABLE

15292700 TALKEETNA RIVER NEAR TALKEETNA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JAN											
23...	1600	--	--	725	200	7.3	E-5.0	.0	737	13.2	K2
23...	1601	--	46	--	205	--	--	.0	--	--	--
23...	1602	--	100	--	200	--	--	.0	--	--	--
23...	1603	--	140	--	200	--	--	.0	--	--	--
MAR											
29...	1615	--	--	491	210	7.3	--	.5	750	12.8	K1
MAY											
16...	1300	--	--	3850	90	7.2	--	4.5	754	12.9	K3
JUN											
27...	1500	--	--	8060	102	6.9	E18.0	8.5	753	11.7	K4
AUG											
09...	1330	--	--	8750	95	7.2	--	11.0	744	10.3	88
SEP											
22...	1400	--	--	3110	--	6.8	--	5.0	750	12.4	--
22...	1401	315	78	--	146	--	--	--	--	--	--
22...	1402	315	157	--	140	--	--	--	--	--	--
22...	1403	315	236	--	135	--	--	--	--	--	--
22...	1404	315	314	--	130	--	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
JAN											
23...	<1	K1	68	21	23	2.6	13	1.5	57	0	18
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
29...	<1	<1	79	27	26	3.4	15	1.6	63	0	14
MAY											
16...	<1	--	42	--	14	1.7	6.3	2.0	--	0	8.3
JUN											
27...	--	--	41	--	14	1.5	4.4	.7	--	0	10
AUG											
09...	K12	--	35	0	12	1.2	3.5	.8	42	0	7.4
SEP											
22...	--	--	45	7	15	1.9	6.8	.9	46	0	12
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--

E ESTIMATED
K NON-IDEAL COLONY COUNT

15292700 TALKEETNA RIVER NEAR TALKEETNA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
JAN											
23...	18	.1	9.3	121	130	114	2	.09	.02	1	0
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
29...	28	.0	8.9	115	--	128	--	.42	.00	--	--
MAY											
16...	9.3	.1	5.6	76	--	--	--	.44	.01	1	0
JUN											
27...	5.9	.0	5.7	51	--	--	--	.25	.03	--	--
AUG											
09...	4.3	.0	4.8	62	--	55	--	.15	.12	1	200
SEP											
22...	9.4	.1	7.8	84	--	77	--	.17	.01	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)
JAN											
23...	0	0	11	80	6	0	.1	0	1	20	<1.0
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
16...	0	5	27	450	--	10	.2	0	0	40	--
JUN											
27...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	--	10	54	5900	--	240	.0	0	0	80	--
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN											
23...	<.4	1.6	<.4	1.4	<.4	.08	.14	.00	6	12	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
29...	--	--	--	--	--	--	--	--	8	11	--
MAY											
16...	--	--	--	--	--	--	--	.00	83	863	--
JUN											
27...	--	--	--	--	--	--	--	--	204	4440	26
AUG											
09...	--	--	--	--	--	--	--	.00	656	15500	--
SEP											
22...	--	--	--	--	--	--	--	--	58	487	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--

15292700 TALKEETNA RIVER NEAR TALKEETNA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)
JAN									
23...	1600	.00	.0	.00	.0	.00	.00	.00	.00

DATE	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)
JAN									
23...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN								
23...	.00	.00	.00	0	.00	.00	.00	.00

15294005 WILLOW CREEK NEAR WILLOW

LOCATION.--Lat 61°46'49", long 149°52'44", in NE¼SE¼ sec.31, T.20 N., R.3 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on left bank 0.7 mi (1.1 km) downstream from unnamed tributary, 5.7 mi (9.2 km) northeast of Willow, and 6.9 mi (11.1 km) upstream from Deception Creek.

DRAINAGE AREA.--166 mi^2 (430 km^2).

PERIOD OF RECORD.--June to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (107 m), from topographic map.

REMARKS.--Record good. Several observations of water temperature were made during the period.

EXTREMES FOR CURRENT PERIOD.--June to September 1978: Maximum discharge, 1,400 ft^3/s (39.6 m^3/s) June 22, gage height, 6.60 ft (2.012 m); minimum 192 ft^3/s (5.44 m^3/s) Sept. 4, gage height, 4.16 ft (1.268 m).

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									450	777	450	222
2									470	705	426	207
3									490	617	396	199
4									510	644	375	194
5									540	585	362	320
6									550	545	349	434
7									600	590	331	340
8									545	530	317	295
9									505	468	331	282
10									525	446	340	287
11									560	426	317	277
12									585	446	292	267
13									525	464	292	253
14									656	595	337	241
15									777	555	331	235
16									783	575	292	262
17									741	560	290	241
18									595	482	270	233
19									575	505	250	260
20									595	765	414	262
21									530	903	372	292
22									943	858	311	287
23									890	771	277	260
24									711	694	262	244
25									705	723	246	244
26									759	644	228	246
27									936	661	218	233
28									838	688	214	222
29									700	580	212	214
30									819	525	207	210
31									---	482	208	---
TOTAL									19408	18809	9517	7763
MEAN									647	607	307	259
MAX									943	903	450	434
MIN									450	426	207	194
CFSM									3.90	3.66	1.85	1.56
IN.									4.35	4.22	2.13	1.74
AC-FT									38500	37310	18880	15400

BEST DOCUMENT AVAILABLE

15294010 DECEPTION CREEK NEAR WILLOW

LOCATION.--Lat 61°44'52", long 149°55'59", in NE¼SE¼ sec.11, T.19 N., R.4 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on right bank, 0.5 mi (0.8 km) downstream from unnamed tributary, 3.4 mi (5.5 km) east of Willow, and 5.0 mi (8.0 km) upstream from mouth.

DRAINAGE AREA.--48.0 mi^2 (124.3 km^2).

PERIOD OF RECORD.--May to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map.

REMARKS.--Record good. Several observations of water temperature were made.

EXTREMES FOR CURRENT PERIOD.--May to September 1978: Maximum discharge, 295 ft^3/s (8.35 m^3/s) June 16, gage height, 5.02 ft (1.530 m); minimum, 19 ft^3/s (0.54 m^3/s) Aug. 28, gage height, 3.16 ft (0.963 m).

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	50	175	34	22
2								---	60	124	31	22
3								---	56	80	28	21
4								---	47	66	28	20
5								---	43	55	28	39
6								---	42	50	29	61
7								---	43	86	28	41
8								---	40	62	26	34
9								---	38	46	26	32
10								---	40	41	24	37
11								92	35	39	25	40
12								98	36	41	24	36
13								100	51	41	26	32
14								94	72	52	31	28
15								93	136	73	37	27
16								86	185	73	30	28
17								69	220	85	30	28
18								58	124	58	28	26
19								52	93	52	25	32
20								49	80	111	28	33
21								44	56	192	29	37
22								42	86	171	26	39
23								40	115	115	24	34
24								42	76	82	22	31
25								39	87	108	22	30
26								124	126	84	21	31
27								121	200	65	20	30
28								80	164	66	20	28
29								67	91	54	20	27
30								60	163	45	20	26
31								51	---	39	21	---
TOTAL	---	---	---	---	---	---	---	---	2655	2431	811	952
MEAN	---	---	---	---	---	---	---	---	88.5	78.4	26.2	31.7
MAX	---	---	---	---	---	---	---	---	220	192	37	61
MIN	---	---	---	---	---	---	---	---	35	39	20	20
CFSM	---	---	---	---	---	---	---	---	1.84	1.63	.55	.66
IN.	---	---	---	---	---	---	---	---	2.06	1.88	.63	.74
AC-FT	---	---	---	---	---	---	---	---	5270	4820	1610	1890

15294300 SKWENTNA RIVER NEAR SKWENTNA

LOCATION.--Lat 61°52'23", long 151°22'01", in NW¼ sec.31, T.21 N., R.11 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on right bank 2 mi (3 km) downstream from Shell Creek, 8 mi (13 km) southwest of Skwentna, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--2,250 mi^2 (5,830 km^2), approximately.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 1936: 1960.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (61 m), from topographic map.

REMARKS.--Records fair except those for the period of no gage-height record, Oct. 21 to May 4, which are poor. Summer flows augmented by glaciers that cover 16 percent of the basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 6,373 ft^3/s (180.5 m^3/s), 38.47 in/yr (977 mm/yr), 4,617,000 acre-ft/yr (5.69 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,600 ft^3/s (1,460 m^3/s) June 9, 1977, gage height, 15.09 ft (4.599 m), from rating curve extended above 35,000 ft^3/s (990 m^3/s); minimum daily, about 600 ft^3/s (17.0 m^3/s) Mar. 1-31, 1964, Dec. 16, 1968 to Mar. 15, 1969, Mar. 9 to Apr. 26, 1971, and Mar. 5 to Apr. 5, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,200 ft^3/s (742 m^3/s) July 6, gage height, 11.14 ft (3.395 m); minimum daily, about 760 ft^3/s (21.5 m^3/s) Apr. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8230	3100	1900	1400	1000	900	780	2600	11200	16900	19100	8320
2	7690	3000	1800	1300	1000	900	780	3000	10500	15400	19800	8050
3	7180	2900	1800	1300	1000	900	780	3600	10000	14800	21100	7720
4	6850	2900	1800	1300	1000	900	780	4600	10800	18500	21600	7360
5	6430	2800	1800	1300	1000	900	780	5800	11500	21600	20900	8110
6	6190	2700	1700	1300	1000	900	760	7000	10800	25300	19600	8740
7	6280	2700	1700	1300	1000	900	760	8000	12000	21600	19200	7720
8	6340	2600	1700	1300	1000	850	760	9000	14500	19400	17900	6970
9	7660	2600	1700	1300	1000	850	760	10000	13700	19000	17100	7420
10	8830	2500	1600	1300	980	850	760	11000	14200	17400	16500	7510
11	8500	2400	1600	1200	950	850	780	11700	15200	19000	15600	6850
12	8050	2400	1600	1200	950	850	780	12300	17600	21600	15600	7150
13	7480	2400	1600	1200	950	850	780	12200	18400	21400	15900	14800
14	7240	2300	1500	1200	950	850	800	12000	16400	18600	14700	14800
15	6730	2300	1500	1200	950	850	820	11500	18200	16800	13000	9940
16	6520	2300	1500	1200	900	850	820	11000	16800	18100	12500	8260
17	5980	2300	1500	1200	900	850	840	10000	13500	19200	11400	6580
18	5600	2200	1500	1200	900	850	860	9070	11400	18000	11400	6800
19	5200	2200	1400	1200	900	850	900	8380	11300	17800	11500	7400
20	4900	2200	1400	1200	900	800	940	8320	11100	19900	12000	7600
21	4600	2200	1400	1200	900	800	980	8680	11600	17300	11600	7200
22	4400	2100	1400	1200	900	800	1000	8410	13800	16000	10500	6700
23	4200	2100	1400	1200	900	800	1100	8200	18800	15400	9760	6200
24	4100	2100	1400	1200	900	800	1200	10400	15400	15200	9010	5900
25	3900	2100	1400	1100	900	800	1300	12100	13700	15200	8590	5700
26	3700	2000	1400	1100	900	800	1400	11200	13900	15200	8500	5500
27	3600	2000	1400	1100	900	800	1600	10400	15000	16200	8620	5280
28	3500	2000	1400	1100	900	800	1800	9850	14700	16900	8350	4950
29	3400	1900	1400	1100	---	800	2000	9340	13900	17200	8410	4520
30	3300	1900	1400	1100	---	800	2300	9340	15300	17800	8080	4300
31	3200	---	1400	1100	---	780	---	10200	---	18400	8170	---
TOTAL	179780	71200	48000	37600	26430	26080	30700	279190	415200	561100	425990	224350
MEAN	5799	2373	1548	1213	944	841	1023	9006	13840	18100	13740	7478
MAX	8830	3100	1900	1400	1000	900	2300	12300	18800	25300	21600	14800
MIN	3200	1900	1400	1100	900	780	760	2600	10000	14800	8080	4300
CFSM	2.58	1.06	.69	.54	.42	.37	.46	4.00	6.15	8.04	6.11	3.32
IN.	2.97	1.18	.79	.62	.44	.43	.51	4.62	6.86	9.28	7.04	3.71
AC-FT	356600	141200	95210	74580	52420	51730	60890	553800	823500	1113000	845000	445000

CAL YR 1977 TOTAL 3604160 MEAN 9874 MAX 50900 MIN 1100 CFSM 4.39 IN 59.59 AC-FT 7149000
WTR YR 1978 TOTAL 2325620 MEAN 6372 MAX 25300 MIN 760 CFSM 2.83 IN 38.45 AC-FT 4613000

15294350 SUSITNA RIVER AT SUSITNA STATION
(National stream-quality accounting network station)

LOCATION.--Lat 61°32'41", long 150°30'45", in SE¼SE¼ sec.22, T.17 N., R.7 W., Matanuska-Susitna Borough, Hydrologic Unit 19050002, on left bank at Susitna Station, 1.5 mi (2.4 km) downstream from Yentna River, and 12.5 mi (20.1 km) upstream from Alexander Creek.

DRAINAGE AREA.--19,400 mi^2 (50,200 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Water-discharge records good except those for period of no gage-height record, Oct. 4 to May 22, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197,000 ft^3/s (5,580 m^3/s) June 16, 1977, gage height, 18.76 ft (5.718 m); minimum daily, about 5,200 ft^3/s (147 m^3/s) Feb. 21 to Mar. 5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136,000 ft^3/s (3,850 m^3/s) July 7, gage height, 15.29 ft (4.660 m); minimum daily, about 6,400 ft^3/s (180 m^3/s) Apr. 3-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77400	18000	8400	7000	6800	6600	6500	11000	62800	114000	122000	66500
2	67200	18000	8200	7000	6800	6600	6500	12000	67600	113000	125000	68600
3	60500	17000	8200	7000	6800	6600	6400	14000	66800	108000	130000	68600
4	54000	17000	8000	7000	6800	6600	6400	16000	65200	106000	130000	67200
5	49000	17000	8000	7000	6800	6600	6400	19000	66800	113000	130000	66700
6	46000	16000	8000	7000	6800	6600	6400	23000	68000	122000	127000	77400
7	43000	16000	7800	7000	6800	6600	6400	28000	66700	130000	121000	83400
8	42000	15000	7800	7000	6800	6600	6400	36000	72800	127000	118000	73000
9	43000	15000	7600	7000	6800	6600	6400	45000	81700	120000	112000	65500
10	46000	14000	7600	7000	6800	6600	6400	54000	82000	116000	115000	63600
11	54000	14000	7600	7000	6800	6600	6400	60000	86600	112000	118000	65600
12	51000	14000	7600	7000	6800	6600	6400	64000	90900	115000	114000	61900
13	47000	13000	7400	7000	6800	6600	6600	66000	97400	121000	114000	60200
14	44000	13000	7400	7000	6800	6600	6600	66000	101000	121000	116000	74600
15	41000	13000	7400	7000	6800	6600	6600	64000	102000	116000	108000	75500
16	38000	12000	7400	7000	6800	6600	6600	60000	107000	115000	98800	65200
17	35000	12000	7400	7000	6800	6600	6800	56000	108000	118000	95000	58400
18	32000	11000	7400	7000	6800	6600	6800	54000	98600	117000	89300	52600
19	31000	11000	7400	7000	6800	6600	6800	52000	91800	112000	88000	50300
20	29000	11000	7400	7000	6800	6600	7000	52000	88100	117000	88700	48400
21	28000	10000	7400	7000	6800	6600	7000	54000	85300	130000	110000	45200
22	27000	10000	7200	7000	6800	6600	7200	54000	83500	125000	108000	42600
23	26000	9800	7200	7000	6800	6600	7200	54500	99400	118000	94700	39100
24	25000	9400	7200	7000	6800	6600	7400	54800	118000	113000	84600	35800
25	24000	9200	7200	7000	6600	6600	7600	63400	111000	114000	79600	34000
26	23000	9000	7200	7000	6600	6600	7800	65400	111000	115000	76300	33000
27	22000	8800	7200	7000	6600	6600	8200	65600	112000	116000	73800	32000
28	21000	8700	7200	6800	6600	6600	8600	64900	118000	120000	72600	31000
29	20000	8600	7200	6800	---	6500	9200	61400	112000	121000	70600	30000
30	20000	8500	7200	6800	---	6500	10000	59700	106000	120000	68300	29000
31	19000	---	7200	6800	---	6500	---	59200	---	120000	66400	---
TOTAL	1185100	379000	233400	216200	189600	204300	211000	1508900	2728000	3645000	3164700	1664900
MEAN	38230	12630	7529	6974	6771	6590	7033	48670	90930	117600	102100	55500
MAX	77400	18000	8400	7000	6800	6600	10000	66000	118000	130000	130000	83400
MIN	19000	8500	7200	6800	6600	6500	6400	11000	62800	106000	66400	29000
CFSM	1.97	.65	.39	.36	.35	.34	.36	2.51	4.69	6.06	5.26	2.86
IN.	2.27	.73	.45	.41	.36	.39	.40	2.89	5.23	6.99	6.07	3.19
AC-FT	2351000	751700	462900	428800	376100	405200	418500	2993000	5411000	7230000	6277000	3302000

CAL YR 1977 TOTAL 20341200 MEAN 55730 MAX 195000 MIN 6000 CFSM 2.87 IN 39.00 AC-FT 40350000
WTR YR 1978 TOTAL 15330100 MEAN 42000 MAX 130000 MIN 6400 CFSM 2.17 IN 29.40 AC-FT 30410000

15294350 SUSITNA RIVER AT SUSITNA STATION--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1970, 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1975 to current year.

INSTRUMENTATION.--Temperature recorder since May 23, 1975.

REMARKS.--No record Oct. 3-15 and Oct. 17 to May 23, when gage was shut down for the winter. Records represent water temperature at sensor within 1.0°C. Temperature at the sensor was compared with the average for the river by temperature cross-sections May 24, July 17, and Aug. 28. A maximum variation of 2.0°C was found within the cross-sections.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 16.5°C July 9, 1976; minimum, 0.0°C on most days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.5°C July 31, Aug. 1-3; minimum, 0.0°C on most days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
DEC											
13...	1230	584	--	7020	225	7.0	-10.0	.0	2.0	760	--
13...	1231	--	480	--	210	7.2	--	.1	--	--	12.6
13...	1232	--	540	--	215	7.0	--	.3	--	--	12.5
13...	1233	--	615	--	230	6.7	--	.1	--	--	11.4
MAR											
01...	1100	--	70	--	205	7.5	--	.1	--	770	10.3
01...	1115	--	160	--	210	7.3	--	.2	--	--	11.3
01...	1145	--	418	--	210	7.3	--	.2	--	--	10.4
01...	1230	508	--	6620	210	7.4	-4.5	.0	1.0	--	--
APR											
05...	1056	--	100	--	205	7.0	--	.0	--	--	12.3
05...	1057	--	200	--	208	7.0	--	.0	--	--	11.1
05...	1058	--	450	--	220	7.0	--	.0	--	--	11.8
05...	1100	--	--	6420	219	7.0	--	.0	1.0	747	--
MAY											
24...	1530	1390	--	55300	115	6.6	--	--	32	--	--
24...	1531	--	200	--	118	--	--	8.0	--	--	10.6
24...	1532	--	450	--	115	--	--	7.5	--	--	11.4
24...	1533	--	700	--	115	6.6	--	6.5	--	--	11.7
24...	1534	--	950	--	115	6.8	--	6.0	--	--	11.8
24...	1535	--	1200	--	120	6.5	--	6.0	--	--	11.7
JUN											
19...	1500	1365	--	92900	--	--	--	--	140	--	--
19...	1501	--	265	--	100	7.7	--	--	--	--	12.0
19...	1502	--	565	--	118	7.6	--	--	--	--	12.4
19...	1503	--	865	--	115	7.6	--	--	--	--	12.2
JUL											
17...	1401	--	1100	--	125	--	--	8.0	--	763	11.2
17...	1402	--	700	--	128	7.6	--	8.0	--	--	10.3
17...	1403	--	500	--	128	7.6	--	9.0	--	--	10.3
17...	1404	--	250	--	128	7.6	--	9.5	--	--	10.3
17...	1405	1850	100	--	122	7.7	--	9.5	--	--	10.1
17...	1500	--	--	120000	127	7.7	19.5	--	240	--	--
AUG											
28...	1500	1160	--	67200	134	7.7	--	--	140	765	--
28...	1501	--	1020	--	138	--	--	8.5	--	--	11.6
28...	1502	--	720	--	130	7.8	--	9.0	--	--	11.6
28...	1503	--	470	--	130	7.8	--	9.5	--	--	11.6
28...	1504	--	270	--	132	7.8	--	10.0	--	--	11.3
28...	1505	--	120	--	132	7.8	--	10.0	--	--	11.4

15294350 SUSITNA RIVER AT SUSITNA STATION--Continued

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
DEC 13...	1230	<1	K8	94	18	30	4.6	7.7	1.9	92	0
MAR 01...	1230	K7	<1	86	18	27	4.4	7.6	1.7	82	0
APR 05...	1100	--	--	89	17	28	4.6	7.7	1.8	88	0
MAY 24...	1530	K3	<1	48	9	15	2.6	3.1	1.0	48	0
JUN 19...	1500	K3	K4	53	7	17	2.5	2.4	1.2	--	--
JUL 17...	1500	K11	K7	56	19	18	2.7	2.4	1.4	45	0
AUG 28...	1500	K9	K9	66	24	22	2.8	3.2	1.5	52	0

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)
DEC 13...	20	18	.2	11	126	139	.30	.09	--	--	--
MAR 01...	16	13	.1	11	115	121	.22	.02	.00	.02	.00
APR 05...	18	14	.1	10	122	128	.23	.00	.16	.16	.09
MAY 24...	10	3.7	.1	5.8	61	65	.16	.01	--	--	--
JUN 19...	15	2.5	.1	6.0	69	74	.64	.05	.16	.21	.19
JUL 17...	20	1.8	.1	4.9	68	74	.08	.01	.56	.57	.30
AUG 28...	16	6.7	.1	4.7	73	83	.10	.10	.19	.29	.12

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 13...	.24	--	.00	.01	.7	.7	.1	12	10	190	--
MAR 01...	.02	.24	.01	.00	1.0	--	--	53	3	54	--
APR 05...	.07	.39	.38	.36	1.8	--	.1	--	2	35	--
MAY 24...	.82	--	.01	.00	--	1.8	.5	370	--	--	--
JUN 19...	.02	.85	.25	.01	3.0	--	--	140	548	137000	--
JUL 17...	.27	.65	.52	.00	--	2.3	--	130	773	250000	61
AUG 28...	.17	.39	.30	.02	--	--	--	--	483	87600	65

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
DEC 13...	1230	2	1	1	0	0	100	0	0	0
APR 05...	1100	2	1	1	100	100	0	1	0	1
MAY 24...	1530	3	2	1	100	100	0	0	--	1
JUL 17...	1500	9	6	3	300	100	200	2	1	1

K NON-IDEAL COLONY COUNT

15294350 SUSITNA RIVER AT SUSITNA STATION--Continued

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
DEC 13...	20	20	0	0	0	0	7	3	4	360
APR 05...	0	0	0	0	0	1	3	2	1	230
MAY 24...	20	15	5	1	1	0	24	20	4	5600
JUL 17...	30	30	0	9	7	2	45	44	1	24000

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)
DEC 13...	300	60	3	2	1	20	0	20	.0	.0
APR 05...	--	60	7	5	2	20	0	20	.0	.0
MAY 24...	5490	110	10	9	1	120	110	10	.1	.1
JUL 17...	24000	20	27	18	9	500	500	0	.2	.1

DATE	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 13...	.0	1	0	1	0	0	0	20	10	10
APR 05...	.0	0	0	0	0	0	0	10	0	10
MAY 24...	.0	0	0	0	2	2	0	30	20	10
JUL 17...	.1	0	0	0	1	1	0	90	80	10

DATE	TIME	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	AROCLOR TOTAL 1254 PCB SERIES (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL (UG/L)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)
DEC 13...	1230	--	ND	--	ND	.0	ND	ND	--	ND	ND
MAR 01...	1230	ND	--	--	--	.1	ND	--	ND	--	ND
MAY 24...	1530	ND	--	ND	ND	--	ND	ND	ND	--	ND
AUG 28...	1500	--	--	ND	--	--	ND	--	--	--	ND

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 01...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 28...	--	ND	--	ND	--	ND	--	ND	--	ND	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 28...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 28...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 13...	ND	ND	ND	ND	--	ND	--	ND	--	ND
MAR 01...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	--	--	--	--	--	--
AUG 28...	ND	--	ND	--	--	--	--	--	--	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15294350 SUSITNA RIVER AT SUSITNA STATION--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES. OCTOBER 1977 TO AUGUST 1978

DATE	DEC 13.77	MAR 1.78	MAY 24.78	JUN 19.78	JUL 17.78	AUG 28.78
TIME	1230	1230	1530	1500	1500	1500
TOTAL CELLS/ML	12	53	370	140	130	4
DIVERSITY: DIVISION	1.0	1.0	1.1	0.7	0.0	0.0
.CLASS	1.0	1.0	1.1	0.7	0.0	0.0
..ORDER	1.0	1.0	1.3	0.7	0.0	0.0
...FAMILY	1.0	1.0	1.9	2.6	1.8	0.0
....GENUS	1.0	1.0	2.0	2.6	1.8	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	14	4	23#	17	--	-	--	-
..VOLVOCALES												
...PHACOTACEAE												
....PTEROMONAS	6#	50	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	23#	43	14	4	--	-	--	-	--	-
..PENNALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	23#	17	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	23#	17	22#	17	--	-
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	--	-	--	-	66#	50	--	-
...FRAGILARIACEAE												
....HANNAEA	--	-	--	-	29	8	23#	17	--	-	--	-
....SYNEDRA	6#	50	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	14	4	23#	17	22#	17	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	43	12	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	14	4	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	14	4	23#	17	22#	17	4#	100
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	30#	57	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	230#	62	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

15294350 SUSITNA RIVER AT SUSITNA STATION--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER 1977 MAX	MIN	MEAN	DAY	MAY 1978 MAX	MIN	MEAN	DAY	MAY 1978 MAX	MIN	MEAN
1	3.5	3.0	3.5	24	9.0	8.0	8.5	28	10.0	9.0	9.5
2	3.5	2.5	3.0	25	10.0	8.5	9.0	29	10.5	9.0	9.5
				26	10.0	9.0	9.0	30	10.5	9.5	10.0
16	1.0	1.0	1.0	27	10.0	8.0	9.0	31	10.5	9.5	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	9.5	10.5	11.5	10.5	11.0	15.5	14.0	15.0	11.5	10.0	10.5
2	11.5	10.0	11.0	12.5	11.0	11.5	15.5	14.0	15.0	11.5	10.5	11.0
3	12.0	10.0	11.0	12.5	11.5	12.0	15.5	14.0	14.5	11.5	10.5	11.0
4	12.0	11.0	11.5	12.0	11.0	11.5	15.0	13.0	13.5	11.5	10.5	11.0
5	12.0	10.5	11.0	12.0	12.0	12.0	13.5	12.5	13.0	11.0	10.0	10.0
6	11.0	9.5	10.5	12.5	11.5	12.0	13.0	11.5	12.0	10.0	9.0	9.5
7	13.5	10.5	11.5	13.0	11.5	12.0	12.5	11.5	12.0	10.0	9.5	10.0
8	13.5	12.0	12.5	13.5	11.5	12.5	12.5	11.5	12.0	10.0	9.0	9.5
9	12.5	11.0	12.0	13.5	12.5	13.0	13.5	12.0	12.5	9.5	9.5	9.5
10	14.0	11.5	13.0	13.5	12.0	12.5	13.5	11.5	12.5	9.5	8.5	9.0
11	14.5	13.0	13.5	13.5	12.0	12.5	13.5	12.0	13.0	9.5	8.5	9.0
12	14.5	13.0	14.0	13.0	12.0	12.5	13.5	12.0	12.5	9.5	9.0	9.5
13	14.0	11.5	12.5	13.0	12.0	12.5	12.0	11.0	11.5	10.0	9.0	9.5
14	11.5	10.0	10.5	13.0	11.0	11.5	11.5	10.5	11.0	10.0	9.0	9.0
15	10.0	9.5	10.0	11.0	10.0	10.5	12.5	10.5	11.5	9.0	8.0	8.5
16	10.5	9.0	9.5	11.0	10.0	10.5	12.5	11.5	12.0	9.0	8.0	8.5
17	10.0	9.0	9.5	11.0	9.5	10.0	12.0	10.5	11.0	9.0	8.0	8.5
18	9.0	8.5	9.0	12.5	10.5	11.5	13.0	11.5	12.0	9.0	8.5	8.5
19	9.0	8.5	8.5	12.5	11.0	11.5	13.0	11.0	12.0	8.5	8.0	8.5
20	11.5	8.5	10.0	11.5	10.5	11.0	12.0	10.5	11.5	8.0	7.5	8.0
21	12.5	10.5	11.5	10.5	10.0	10.5	12.0	10.5	11.5	8.0	8.0	8.0
22	12.5	11.0	11.5	11.0	10.0	10.5	12.0	10.0	11.0	8.0	6.5	7.0
23	11.0	10.5	10.5	12.0	10.0	10.5	11.5	10.5	11.0	6.5	5.5	6.0
24	10.5	9.5	10.0	13.0	11.5	12.0	11.5	10.0	11.0	8.0	5.0	6.5
25	9.5	9.5	9.5	13.5	12.0	12.5	12.0	10.5	11.0	9.5	6.5	7.5
26	10.5	9.0	9.5	13.5	12.0	12.5	12.0	10.5	11.0	---	6.0	---
27	10.5	10.0	10.0	14.5	12.5	13.5	11.5	10.0	11.0	---	5.0	---
28	12.0	10.0	11.0	14.5	12.5	13.5	11.5	10.0	10.5	---	---	---
29	12.5	11.0	12.0	14.5	12.0	13.0	10.5	9.0	9.5	---	---	---
30	12.0	11.0	11.5	15.0	13.0	14.0	10.5	9.5	10.0	---	---	---
31	---	---	---	15.5	13.5	14.5	10.5	9.5	10.0	---	---	---
MONTH	14.5	8.5	11.0	15.5	9.5	12.0	15.5	9.0	12.0	11.5	5.0	9.0
YEAR	15.5	1.0	10.5									

BEST DOCUMENT AVAILABLE

15294450 CHUITNA RIVER NEAR TYONEK

LOCATION.--Lat 61°06'31", long 151°15'07", in NE¼SE¼ sec.29, T.12 N., R.11 W., Kenai Peninsula Borough, Hydrologic Unit 19050002, on left bank 2.1 mi (3.4 km) downstream from Lone Creek, 4.8 mi (7.7 km) northwest of Tyonek, and 6.1 mi (9.8 km) upstream from mouth.

DRAINAGE AREA.--131 mi² (339 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (49 m), from topographic map.

REMARKS.--Water-discharge records good except those for Nov. 2 to May 5, which are estimated and considered poor. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,700 ft³/s (190 m³/s) Sept. 21, 1977, gage height, 9.50 ft (2.896 m), from rating curve extended above 2,700 ft³/s (76 m³/s); maximum gage height, 10.97 ft (3.344 m) May 11, 1976, backwater from ice; minimum daily discharge, about 60 ft³/s (1.7 m³/s) Mar.1 to Apr. 15, 1976 and Feb. 12 to Mar. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) May 24, gage height, 6.90 ft (2.103 m), no peak above base of 2,200 ft³/s (62 m³/s); maximum gage height, 9.33 ft (2.844 m) May 3, backwater from ice; minimum daily discharge, about 60 ft³/s (1.7 m³/s) Feb. 12 to Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	159	75	75	62	60	70	330	763	253	153	93
2	500	135	75	75	62	60	70	390	665	228	142	91
3	455	130	75	75	62	60	70	450	644	253	132	87
4	430	130	75	75	62	60	70	520	665	686	130	85
5	383	125	70	75	62	60	70	600	651	992	130	256
6	365	120	70	70	62	60	70	693	560	552	128	201
7	396	115	70	70	62	60	70	714	480	396	123	138
8	365	110	70	70	62	60	70	819	406	309	118	138
9	406	110	70	70	62	60	70	880	396	257	135	201
10	420	105	70	70	62	60	70	856	374	238	142	174
11	401	100	70	70	62	60	70	1020	396	228	125	140
12	374	100	70	65	60	60	70	1060	370	665	118	218
13	333	100	75	65	60	62	70	1020	353	378	150	561
14	317	95	75	65	60	62	70	1120	760	305	150	345
15	297	95	75	65	60	62	70	1180	1060	365	132	210
16	285	95	75	65	60	62	70	984	840	406	125	177
17	273	90	75	65	60	62	75	864	582	383	177	150
18	204	90	75	65	60	62	75	864	651	301	132	159
19	220	90	80	65	60	62	75	880	558	710	116	214
20	253	90	80	65	60	64	80	968	425	693	198	231
21	281	85	80	65	60	64	80	968	353	516	145	198
22	317	85	80	65	60	64	90	944	480	505	118	165
23	297	85	80	62	60	64	90	1030	410	455	110	148
24	273	80	80	62	60	64	100	1780	317	361	103	140
25	257	80	80	62	60	66	110	1360	361	383	97	148
26	249	80	80	62	60	66	125	1060	707	293	93	238
27	245	80	80	62	60	66	150	856	445	249	91	183
28	242	80	75	62	60	68	190	798	337	217	89	159
29	228	75	75	62	---	68	240	784	277	195	91	148
30	224	75	75	62	---	68	280	805	281	183	95	138
31	224	---	75	62	---	68	---	944	---	168	97	---
TOTAL	10078	2989	2330	2068	1702	1944	2880	27541	15567	12123	3885	5534
MEAN	325	99.6	75.2	66.7	60.8	62.7	96.0	888	519	391	125	184
MAX	564	159	80	75	62	68	280	1780	1060	992	198	561
MIN	204	75	70	62	60	60	70	330	277	168	89	85
CFSM	2.48	.76	.57	.51	.46	.48	.73	6.78	3.96	2.99	.95	1.41
IN.	2.86	.85	.66	.59	.48	.55	.82	7.82	4.42	3.44	1.10	1.57
AC-FT	19990	5930	4620	4100	3380	3860	5710	54630	30880	24050	7710	10980

CAL YR 1977 TOTAL 185481 MEAN 508 MAX 4940 MIN 70 CFSM 3.88 IN 52.67 AC-FT 367900
WTR YR 1978 TOTAL 88641 MEAN 243 MAX 1780 MIN 60 CFSM 1.86 IN 25.17 AC-FT 175800

15294450 CHUITNA RIVER NEAR TYONEK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1976 to current year.

INSTRUMENTATION.--Temperature recorder since May 10, 1976.

REMARKS.--No record Dec. 5 to Apr. 26, when recorder shut down for winter.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 4, 1976; minimum, 0.0°C on most days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Aug. 2; minimum, 0.0°C on most days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 08...	1230	432	8.5	10	12

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.5	2.0	.5	.0	.0	.0						
2	4.5	3.0	.5	.0	.0	.0						
3	5.0	4.0	.0	.0	.0	.0						
4	6.0	4.5	.0	.0	.0	.0						
5	4.5	2.0	.0	.0	---	---						
6	3.5	3.0	.0	.0	---	---						
7	5.0	3.5	.0	.0	---	---						
8	5.0	4.5	.0	.0	---	---						
9	5.0	4.5	.0	.0	---	---						
10	5.0	5.0	.0	.0	---	---						
11	5.5	4.5	.0	.0	---	---						
12	5.0	4.5	.0	.0	---	---						
13	5.0	4.0	.0	.0	---	---						
14	4.0	3.0	.0	.0	---	---						
15	4.0	3.0	.0	.0	---	---						
16	3.5	2.0	.0	.0	---	---						
17	2.0	.0	.0	.0	---	---						
18	.5	.0	.0	.0	---	---						
19	.0	.0	.0	.0	---	---						
20	.0	.0	.0	.0	---	---						
21	.0	.0	.0	.0	---	---						
22	1.0	.0	.0	.0	---	---						
23	.5	.0	.0	.0	---	---						
24	1.5	.5	.0	.0	---	---						
25	.5	.0	.0	.0	---	---						
26	1.0	.5	.0	.0	---	---						
27	1.5	1.0	.0	.0	---	---						
28	1.0	.0	.0	.0	---	---						
29	.5	.0	.0	.0	---	---						
30	.5	.0	.0	.0	---	---						
31	.5	.0	---	---	---	---						
MONTH	6.0	.0	.5	.0	.0	.0						

15294450 CHUITNA RIVER NEAR TYONEK--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	.0	.0	8.5	3.5	14.5	11.0	21.0	15.0	15.5	11.0
2	---	---	.0	.0	9.0	4.5	15.0	10.5	21.5	15.0	15.0	9.5
3	---	---	.5	.0	11.0	5.5	13.0	10.0	18.0	15.0	15.0	10.5
4	---	---	1.5	.0	10.5	5.5	11.0	9.0	16.0	14.5	12.5	10.5
5	---	---	1.5	.5	9.5	5.5	11.5	10.0	15.0	13.5	12.0	10.5
6	---	---	1.0	.5	9.5	6.0	11.5	9.5	17.5	12.5	12.0	9.0
7	---	---	2.5	.5	11.5	7.5	13.5	10.0	17.5	13.5	11.5	9.0
8	---	---	4.5	.5	10.5	8.0	16.0	10.0	16.5	14.5	12.0	10.0
9	---	---	2.0	1.0	11.5	9.0	13.5	12.0	15.5	14.0	11.5	9.5
10	---	---	6.0	1.0	14.0	9.0	17.0	12.0	19.0	13.5	11.0	8.0
11	---	---	6.0	.5	13.5	10.5	14.5	12.0	18.0	14.0	10.5	8.0
12	---	---	4.5	.5	14.5	10.0	13.5	11.0	16.0	14.0	11.0	9.5
13	---	---	5.5	1.0	12.0	9.5	15.5	11.0	16.5	13.0	10.0	9.5
14	---	---	7.0	1.5	9.5	7.5	14.0	12.0	15.5	13.0	10.5	9.0
15	---	---	5.5	1.0	9.5	7.5	11.5	10.5	17.0	12.0	10.5	8.5
16	---	---	5.5	2.0	9.5	7.5	11.0	10.0	14.5	12.5	10.5	8.5
17	---	---	6.0	1.5	9.0	7.5	13.0	10.0	16.0	10.5	10.0	4.0
18	---	---	6.5	2.0	8.5	7.0	14.5	11.5	17.0	11.5	10.0	8.5
19	---	---	8.0	1.0	11.0	8.0	13.0	11.0	15.0	12.5	9.5	8.0
20	---	---	8.5	1.5	14.0	9.0	11.5	10.5	14.5	12.0	9.0	8.0
21	---	---	8.5	1.5	14.5	10.0	11.5	10.0	15.5	11.0	9.0	7.5
22	---	---	6.0	2.5	13.0	9.5	12.0	10.5	16.0	11.0	9.0	6.5
23	---	---	4.5	2.5	14.0	9.0	14.0	10.5	16.0	11.0	6.5	4.0
24	---	---	4.0	2.5	14.0	11.0	13.5	12.0	16.0	10.5	6.5	4.0
25	---	---	7.0	2.5	12.0	9.5	16.0	11.0	16.0	11.0	7.0	6.0
26	---	---	5.5	3.0	12.5	8.5	16.5	12.5	15.5	10.5	8.0	6.0
27	.0	.0	7.5	2.5	11.5	9.5	18.5	13.0	14.5	10.5	6.5	4.5
28	.0	.0	6.5	3.5	14.5	8.5	18.0	14.5	14.0	12.0	6.5	4.0
29	.0	.0	8.0	4.5	14.5	11.5	17.5	13.5	13.0	11.5	6.0	3.5
30	.0	.0	6.5	4.0	14.0	11.5	19.0	13.0	14.0	10.5	4.5	2.5
31	---	---	6.0	3.5	---	---	20.5	14.0	15.0	11.0	---	---
MONTH	.0	.0	8.5	.0	14.5	3.5	20.5	9.0	21.5	10.5	15.5	2.5
YEAR	21.5	.0										

BEST DOCUMENT AVAILABLE

15295600 TERROR RIVER NEAR KODIAK

LOCATION.--Lat 57°39'10", long 153°01'30", in NE¼ sec.19, T.29 S., R.23 W., Kodiak Island Borough, Hydrologic Unit 19050001, on Kodiak Island, in Kodiak National Wildlife Refuge, on right bank at outlet of Terror Lake 8 mi (13 km) upstream from Terror Bay and 25 mi (40 km) southwest of Kodiak.

DRAINAGE AREA.--15.0 mi^2 (38.8 km^2).

PERIOD OF RECORD.--June 1962 to September 1968, July to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft (375 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--6 years (water years 1963-68), 132 ft^3/s (3.738 m^3/s), 119.50 in/yr (3,035 mm/yr), 95,630 acre-ft/yr (118 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,590 ft^3/s (130 m^3/s) Aug. 29, 1963, gage height, 5.92 ft (1.804 m), from rating curve extended above 700 ft^3/s (19.8 m^3/s) on basis of velocity-area study; minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 13-24, 1966.

EXTREMES FOR CURRENT PERIOD.--July to September 1978: Maximum discharge during period, 1,740 ft^3/s (49.3 m^3/s) Sept. 14, gage height, 3.68 ft (1.122 m), only peak above base of 1,000 ft^3/s (28.3 m^3/s); minimum, 41 ft^3/s (1.17 m^3/s) Sept. 30, gage height, 0.65 ft (0.198 m).

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										280	335	496
2										270	365	390
3										350	365	228
4										450	300	206
5										550	264	269
6										550	232	210
7										580	228	158
8										580	248	170
9										600	274	170
10										600	296	139
11										601	300	127
12										544	438	490
13										400	340	485
14										370	256	1390
15										360	248	736
16										287	248	350
17										365	292	252
18										416	236	380
19										438	220	240
20										400	296	167
21										350	305	139
22										325	282	116
23										310	256	96
24										310	203	81
25										310	167	70
26										310	170	68
27										278	121	65
28										320	130	58
29										340	344	50
30										350	550	43
31										355	490	---
TOTAL										12549	8799	7839
MEAN										405	284	261
MAX										601	550	1390
MIN										270	121	43
CFSM										27.0	18.9	17.4
IN.										31.12	21.82	19.44
AC-FT										24890	17450	15550

15296000 UGANIK RIVER NEAR KODIAK

LOCATION.--Lat 57°41'06", long 153°25'10", Kodiak Island Borough, Hydrologic Unit 19050001, on Kodiak Island, on right bank 0.5 mi (0.8 km) upstream from tidewater of East Arm Uganik Bay, 1 mi (2 km) downstream from Mush Lake tributary, 4 mi (6 km) downstream from Uganik Lake, and 40 mi (64 km) west of Kodiak.

DRAINAGE AREA.--123 mi^2 (319 km^2).

PERIOD OF RECORD.--May 1951 to September 1978 (discontinued).

REVISED RECORDS.--WDR AK-77-1: 1962-64(P).

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, Dec. 4 to Apr. 4, which are poor. Periodic high tides cause backwater at the gage and are shown on the stage record. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 673 ft^3/s (19.06 m^3/s), 74.31 in/yr (1,887 mm/yr), 487,600 acre-ft/yr (612 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s (388 m^3/s) Oct. 3, 1952, gage height, 10.65 ft (3.246 m), from rating curve extended above 2,500 ft^3/s (71 m^3/s); minimum daily, 24 ft^3/s (0.68 m^3/s) Mar. 10-18, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 23	0400	4,280	121	7.64	2.329	Sept.14	1800	*4,830	137	*7.86	2.396

Minimum daily discharge, about 70 ft^3/s (2 m^3/s) Dec. 30 to Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	492	110	70	170	250	120	741	1090	1140	1400	1660
2	240	401	100	70	160	230	120	707	1030	1130	1510	1480
3	250	362	100	70	150	210	120	664	1030	1480	1450	1100
4	326	344	95	70	130	190	120	640	1040	1980	1320	950
5	332	314	90	70	130	170	118	600	1040	2370	1190	1130
6	356	296	90	70	100	160	108	640	1060	2280	1130	1040
7	471	278	85	75	100	140	108	820	1180	2460	1060	800
8	450	245	90	85	110	130	125	940	1400	2340	1100	761
9	1660	225	100	95	120	120	122	950	1500	2460	1130	761
10	1680	210	100	110	120	120	118	1250	1400	2450	1210	680
11	1360	200	95	120	110	150	118	1400	1340	2300	1200	584
12	1210	190	90	130	110	180	122	1300	1470	2520	1560	1380
13	940	180	90	150	100	160	125	1380	1450	2250	1520	1700
14	810	170	90	130	100	140	161	1290	1980	1400	1150	4780
15	810	160	85	120	100	130	266	1170	2940	1330	1100	3790
16	700	190	85	100	110	120	308	1120	2190	1180	1080	2010
17	608	183	80	110	120	110	302	1040	1650	1270	1190	1310
18	513	153	80	120	120	110	290	930	1520	1930	1110	2090
19	478	145	80	110	120	130	290	890	1950	1980	990	1480
20	506	141	80	110	110	130	290	900	2120	1710	1150	1060
21	513	141	80	100	130	120	296	940	2120	1440	1300	860
22	980	137	80	120	160	110	302	970	3240	1360	1170	707
23	1380	133	75	110	190	110	308	990	3830	1280	1130	600
24	1110	129	75	100	250	110	302	1530	2800	1280	950	513
25	860	129	75	90	400	110	326	1400	2090	1260	910	450
26	950	125	75	100	320	100	429	1150	1770	1250	810	401
27	1020	122	75	110	350	100	506	1020	1630	1140	707	362
28	880	118	75	130	280	100	520	950	1440	1150	640	344
29	725	114	75	150	---	100	560	950	1280	1300	1200	320
30	616	111	70	160	---	110	741	970	1220	1330	2450	296
31	536	---	70	170	---	110	---	1110	---	1580	2030	---
TOTAL	23520	6138	2640	3325	4470	4260	7741	31352	51800	52330	37847	35399
MEAN	759	205	85.2	107	160	137	258	1011	1727	1688	1221	1180
MAX	1680	492	110	170	400	250	741	1530	3830	2520	2450	4780
MIN	240	111	70	70	100	100	108	600	1030	1130	640	296
CFSM	6.17	1.67	.69	.87	1.30	1.11	2.10	8.22	14.0	13.7	9.93	9.59
IN.	7.11	1.86	.80	1.01	1.35	1.29	2.34	9.48	15.67	15.83	11.45	10.71
AC-FT	46650	12170	5240	6600	8870	8450	15350	62190	102700	103800	75070	70210

CAL YR 1977 TOTAL 322512 MEAN 884 MAX 8110 MIN 70 CFSM 7.19 IN 97.54 AC-FT 639700
WTR YR 1978 TOTAL 260822 MEAN 715 MAX 4780 MIN 70 CFSM 5.81 IN 78.88 AC-FT 517300

15296550 UPPER THUMB RIVER NEAR LARSEN BAY

LOCATION.--Lat 57°21'03", long 153°58'04", in NE¼NE¼ sec.1, T.33 S., R.30 W., Kodiak Island Borough, Hydrologic Unit 19050001, Kodiak National Wildlife Refuge, on Kodiak Island, on right bank 0.2 mi (0.3 km) downstream from confluence of East and North Forks, 0.3 mi (0.5 km) upstream from mouth at Thumb Lake, and 13 mi (21 km) south of Larsen Bay.

DRAINAGE AREA.--18.8 mi^2 (48.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (116 m), from topographic map.

REMARKS.--Water-discharge records fair except those for period of no gage-height record, July 25 to Sept. 30, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft^3/s (33.7 m^3/s) June 16, 1977, gage height, 3.24 ft (0.988 m), from rating curve extended above 230 ft^3/s (6.5 m^3/s); minimum, 8.1 ft^3/s (0.23 m^3/s) Mar. 19 and Apr. 3, 1975, gage height, 0.53 ft (0.162 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) June 19, gage height, 2.85 ft (0.869 m), from rating curve extended above 230 ft^3/s (6.5 m^3/s) but may have been greater during period of no gage-height record, Sept. 10-15; minimum daily, 12 ft^3/s (0.34 m^3/s) Dec. 1, Jan. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	53	12	14	23	34	18	98	223	181	140	120
2	54	44	15	14	22	30	18	100	223	185	150	85
3	52	42	14	14	21	26	19	106	228	197	140	70
4	53	41	14	13	20	24	19	102	228	205	110	65
5	50	37	15	12	19	23	19	100	210	185	90	90
6	54	35	14	12	14	21	19	106	205	165	80	70
7	53	33	14	14	17	20	21	147	236	169	80	50
8	66	30	14	14	18	20	25	159	260	201	90	44
9	404	31	16	14	18	19	26	189	255	232	100	38
10	218	28	16	14	18	18	25	246	236	205	120	32
11	241	28	14	14	18	23	28	236	236	232	130	30
12	189	26	14	14	18	26	29	255	270	197	150	90
13	135	27	14	21	17	21	32	255	270	153	120	250
14	112	23	16	19	18	19	50	232	628	138	110	800
15	96	21	16	18	17	19	57	241	533	125	90	500
16	85	21	16	15	16	18	50	214	350	112	80	220
17	72	27	16	18	16	18	48	189	580	120	70	140
18	63	25	16	18	18	17	45	165	940	122	70	200
19	60	24	16	18	17	19	48	165	970	135	70	130
20	57	24	16	17	16	19	52	189	720	125	80	100
21	58	22	16	16	18	18	56	214	668	118	110	80
22	130	21	16	17	23	16	56	260	840	108	90	65
23	110	21	16	18	34	16	53	434	620	110	70	50
24	90	19	15	16	36	16	54	458	458	108	60	45
25	106	19	14	16	50	16	68	340	392	105	50	40
26	135	19	14	16	42	16	77	295	340	100	45	35
27	128	19	14	18	47	16	79	255	295	90	40	31
28	96	18	14	20	38	16	74	223	250	90	35	28
29	81	18	14	23	---	16	79	197	232	110	80	26
30	70	16	14	23	---	17	90	223	205	120	240	25
31	62	---	14	24	---	17	---	255	---	140	150	---
TOTAL	3236	812	459	514	649	614	1334	6648	12101	4583	3040	3549
MEAN	104	27.1	14.8	16.6	23.2	19.8	44.5	214	403	148	98.1	118
MAX	404	53	16	24	50	34	90	458	970	232	240	800
MIN	50	16	12	12	14	16	18	98	205	90	35	25
CFSM	5.53	1.44	.79	.88	1.23	1.05	2.37	11.4	21.4	7.87	5.22	6.28
IN.	6.40	1.61	.91	1.02	1.28	1.21	2.64	13.15	23.94	9.07	6.02	7.02
AC-FT	6420	1610	910	1020	1290	1220	2650	13190	24000	9090	6030	7040

CAL YR 1977 TOTAL 41595 MEAN 114 MAX 1010 MIN 12 CFSM 6.06 IN 82.30 AC-FT 82500
WTR YR 1978 TOTAL 37539 MEAN 103 MAX 970 MIN 12 CFSM 5.48 IN 74.28 AC-FT 74460

15296550 UPPER THUMB RIVER NEAR LARSEN BAY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1974 to current year.

INSTRUMENTATION.--Temperature recorder since July 27, 1974.

REMARKS.--No record Oct. 1-11 because of temperature recorder malfunction, and July 25 to Sept. 30 when high water washed out recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 14.0°C Aug. 16, 1974; minimum 0.0°C Feb. 22-25, 1978.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 10.0°C July 10, 24; minimum 0.0°C Feb. 22-25.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	3.0	1.5	.5	.5	1.0	1.0	1.0	1.0	1.5	.5
2	---	---	1.5	1.5	.5	.5	1.0	1.0	1.0	.5	1.0	.5
3	---	---	1.5	1.5	.5	.5	1.0	1.0	1.0	.5	1.0	1.0
4	---	---	2.0	1.5	.5	.5	1.0	1.0	1.0	1.0	1.5	1.0
5	---	---	2.0	1.5	.5	.5	1.0	1.0	1.0	.5	2.5	1.5
6	---	---	1.5	1.5	.5	.5	1.0	1.0	.5	.5	3.0	1.5
7	---	---	1.5	1.5	.5	.5	1.0	.5	.5	.5	1.5	1.5
8	---	---	1.5	1.5	.5	.5	.5	.5	.5	.5	1.5	1.5
9	---	---	2.0	1.5	.5	.5	1.0	.5	.5	.5	2.5	1.5
10	---	---	1.5	1.0	.5	.5	1.0	1.0	.5	.5	2.5	1.5
11	---	---	1.0	1.0	1.0	.5	1.0	1.0	.5	.5	2.0	1.0
12	5.5	5.5	1.0	1.0	1.0	1.0	1.0	1.0	.5	.5	2.0	1.0
13	5.5	5.5	1.5	1.0	1.0	.5	1.0	1.0	.5	.5	3.0	1.5
14	5.5	5.5	1.5	.5	.5	.5	1.0	1.0	.5	.5	3.0	1.5
15	5.5	4.0	.5	.5	.5	.5	1.0	.5	1.0	.5	2.5	1.5
16	4.5	4.0	.5	.5	.5	.5	.5	.5	1.0	.5	1.5	1.5
17	4.5	3.0	.5	.5	.5	.5	.5	.5	1.0	1.0	2.5	1.5
18	3.5	3.0	1.0	.5	.5	.5	1.0	.5	1.0	1.0	2.5	1.5
19	4.5	3.5	1.5	1.0	.5	.5	1.0	.5	1.0	.5	2.5	2.0
20	4.5	4.0	1.5	1.5	.5	.5	.5	.5	1.0	.5	2.0	1.5
21	4.0	3.5	1.5	1.0	1.0	.5	.5	.5	1.0	.5	3.5	1.5
22	4.0	4.0	1.0	1.0	1.0	1.0	1.0	.5	1.0	.0	3.0	1.5
23	4.0	3.5	1.0	1.0	1.0	1.0	1.0	1.0	.5	.0	2.0	1.5
24	3.5	3.5	1.0	1.0	1.0	1.0	1.0	1.0	.5	.0	2.0	1.0
25	3.5	2.5	1.5	1.0	1.0	1.0	1.0	.5	1.0	.0	3.0	1.5
26	3.5	3.5	1.5	1.5	1.0	1.0	1.0	.5	1.5	.5	3.0	1.5
27	3.5	3.5	1.5	1.0	1.0	1.0	1.0	1.0	1.5	.5	3.0	1.5
28	3.5	2.5	1.0	.5	1.0	1.0	1.0	1.0	2.0	1.0	3.0	2.0
29	2.5	2.0	.5	.5	1.0	1.0	1.5	1.0	---	---	3.5	1.5
30	3.0	2.0	.5	.5	1.0	1.0	1.5	1.0	---	---	5.0	1.5
31	3.0	2.0	---	---	1.0	1.0	1.5	1.0	---	---	4.5	1.5
MONTH	5.5	2.0	3.0	.5	1.0	.5	1.5	.5	2.0	.0	5.0	.5

15296550 UPPER THUMB RIVER NEAR LARSEN BAY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.5	1.5	4.5	2.5	5.0	3.5	9.0	4.5				
2	4.5	1.5	5.5	2.0	6.0	4.0	7.0	5.0				
3	3.0	1.5	4.0	3.0	6.0	3.5	6.5	5.5				
4	3.0	2.0	4.0	2.5	5.0	4.0	6.0	5.5				
5	5.0	2.0	5.5	2.5	5.0	4.0	6.0	5.0				
6	4.0	2.0	5.0	2.5	6.0	4.0	6.0	5.0				
7	6.0	2.0	5.0	2.5	6.5	3.5	7.0	5.0				
8	3.5	2.5	5.5	2.5	5.5	4.0	7.5	5.5				
9	4.5	2.0	5.0	3.0	5.5	4.0	7.0	6.0				
10	5.0	1.5	5.0	2.5	5.5	4.0	10.0	5.5				
11	4.5	2.5	5.0	2.5	8.5	4.0	8.0	7.0				
12	3.5	2.5	5.5	2.5	5.5	4.0	7.0	6.0				
13	5.5	2.5	5.5	2.5	5.5	4.0	7.5	5.5				
14	5.0	3.0	6.5	2.5	5.0	4.0	9.5	5.5				
15	3.5	2.0	4.5	3.0	4.0	3.5	8.0	6.0				
16	5.0	2.0	5.5	3.0	5.0	3.5	7.0	6.0				
17	5.5	1.5	5.0	3.0	4.5	4.0	7.0	6.0				
18	6.0	1.5	5.5	3.0	4.5	4.0	7.5	6.0				
19	6.0	1.5	6.5	3.0	6.0	4.0	7.5	6.5				
20	5.5	2.0	7.5	2.5	5.5	4.0	8.5	6.0				
21	6.0	1.5	7.0	2.5	6.5	4.5	8.0	6.5				
22	4.0	2.0	5.5	3.5	6.5	5.0	8.0	6.5				
23	4.5	2.0	4.5	3.5	6.0	4.5	7.5	7.0				
24	5.5	2.0	4.0	3.0	6.0	4.0	10.0	6.5				
25	5.0	2.5	5.5	3.0	5.5	5.0	---	---				
26	3.5	2.0	5.5	3.0	6.0	4.5	---	---				
27	4.5	2.0	4.0	3.5	5.5	4.5	---	---				
28	4.0	2.5	5.0	2.5	9.0	4.0	---	---				
29	5.5	2.5	6.0	3.5	7.0	4.5	---	---				
30	5.0	2.5	5.5	3.5	5.5	5.0	---	---				
31	---	---	6.0	3.0	---	---	---	---				
MONTH	6.0	1.5	7.5	2.0	9.0	3.5	10.0	4.5				

15297200 MYRTLE CREEK NEAR KODIAK

LOCATION.--Lat 57°36'12", long 152°24'12", in NE¼SW¼ sec.6, T.30 S., R.19 W., Kodiak Island Borough, Hydrologic Unit 19050001, on Kodiak Island, on left bank 0.1 mi (0.2 km) upstream from bridge, 0.3 mi (0.5 km) upstream from mouth, and 13 mi (21 km) south of Kodiak.

DRAINAGE AREA.--4.74 mi² (12.28 km²).

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m), from topographic map. Prior to Apr. 4, 1977 at site 200 ft (60 m) downstream on right bank at same datum.

REMARKS.--Records fair. Periodic high tides cause backwater at the gage and are shown on the stage record. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 45.2 ft³/s (1.280 m³/s), 129.50 in/yr (3,289 mm/yr), 32,750 acre-ft/yr (40.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft³/s (38.2 m³/s) Jan. 3, 1977, gage height, 5.61 ft (1.710 m) site then in use, 6.93 ft (2.112 m) from floodmarks at present site, from rating curve extended above 400 ft³/s (11.3 m³/s) on the basis of slope-area measurement of peak flow; maximum gage height, 8.40 ft (2.560 m) Mar. 28, 1964, at site then in use, tidal wave caused by earthquake; minimum daily discharge, about 1.0 ft³/s (0.028 m³/s) Mar. 3-18, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft³/s (16 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	1000	*822	23.3	*5.75	1.753	Jan. 30	0630	623	17.6	5.18	1.579

Minimum discharge recorded, 4.9 ft³/s (0.139 m³/s) Jan. 8, but may have been less during periods of no gage-height record, Dec. 25-31, Jan. 5 and 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	48	11	5.5	86	69	22	172	115	16	11	57
2	14	43	11	5.9	58	44	19	94	85	24	10	47
3	41	41	11	5.9	41	32	18	78	67	28	10	34
4	35	38	10	5.5	41	24	36	53	62	31	9.5	30
5	27	34	10	5.5	33	19	30	47	67	28	8.9	28
6	78	34	9.5	5.5	32	16	30	136	56	43	7.9	23
7	53	32	9.5	5.2	32	15	29	242	53	54	7.0	24
8	75	30	9.0	13	30	14	30	186	52	36	8.9	44
9	426	29	9.0	28	30	13	30	360	44	41	11	35
10	143	28	9.0	25	30	12	25	342	40	32	15	29
11	135	28	8.5	62	28	17	26	178	41	30	15	31
12	81	26	8.5	122	26	26	27	135	52	28	54	177
13	52	26	8.5	280	24	18	30	138	53	25	32	169
14	52	24	8.0	135	26	20	43	99	79	26	24	229
15	42	24	8.0	69	20	17	49	124	60	21	19	72
16	102	22	8.0	44	47	15	40	158	43	16	17	42
17	69	20	7.5	62	67	13	32	158	43	58	15	70
18	46	20	7.5	150	107	12	29	150	49	56	13	78
19	98	19	7.5	107	78	13	29	124	49	48	12	47
20	103	18	7.0	46	47	13	30	99	35	36	11	33
21	137	17	7.0	29	60	12	31	81	41	35	11	26
22	273	17	7.0	79	117	11	33	91	68	32	9.5	20
23	140	16	6.5	58	119	10	47	213	40	26	8.9	16
24	97	16	6.5	34	135	10	67	140	28	25	8.4	14
25	144	18	6.5	23	114	9.5	176	102	24	21	7.9	12
26	233	16	6.0	50	105	11	154	94	22	17	7.5	11
27	129	15	6.0	179	180	15	184	81	20	15	6.6	9.5
28	89	14	6.0	216	107	16	110	75	16	15	6.6	8.4
29	74	13	6.0	242	---	15	222	72	16	13	14	7.9
30	62	12	5.5	302	---	17	210	249	16	16	44	7.0
31	54	---	5.5	114	---	24	---	168	---	13	48	---
TOTAL	3111.9	738	246.5	2508.0	1820	572.5	1838	4439	1436	905	483.6	1430.8
MEAN	100	24.6	7.95	80.9	65.0	18.5	61.3	143	47.9	29.2	15.6	47.7
MAX	426	48	11	302	180	69	222	360	115	58	54	229
MIN	7.9	12	5.5	5.2	20	9.5	18	47	16	13	6.6	7.0
CFSM	21.1	5.19	1.68	17.1	13.7	3.90	12.9	30.2	10.1	6.16	3.29	10.1
IN.	24.42	5.79	1.93	19.68	14.28	4.49	14.42	34.83	11.27	7.10	3.79	11.23
AC-FT	6170	1460	489	4970	3610	1140	3650	8800	2850	1800	959	2840

CAL YR 1977 TOTAL 19035.4 MEAN 52.2 MAX 460 MIN 5.5 CFSM 11.0 IN 149.36 AC-FT 37760
WTR YR 1978 TOTAL 19529.3 MEAN 53.5 MAX 426 MIN 5.2 CFSM 11.3 IN 153.24 AC-FT 38740

NOTE.--No gage-height record Nov. 9 to Dec. 31.

15297900 ESKIMO CREEK AT KING SALMON

LOCATION.--Lat 58°41'08", long 156°40'08", in SW¼ sec.23, T.17 S., R.44 W., Hydrologic Unit 19040002, on right bank 30 ft (9.1 m) upstream from culvert on King Salmon-Naknek road, 0.3 mi (0.5 km) upstream from mouth, and 0.3 mi (0.5 km) northwest of King Salmon post office. Prior to Sept. 30, 1976 on left bank.

DRAINAGE AREA.--16.1 mi² (41.7 km²).

PERIOD OF RECORD.--Annual maximums, water years 1965-67, 1969-73. October 1973 to September 1976 and October 1977 to current year.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 20 ft (6 m), from topographic map. Prior to Oct. 18, 1973, crest-stage gage on right bank at datum 2.69 ft (0.820 m) lower.

REMARKS.--Records poor for period of no gage-height record prior to Apr. 25, fair thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 227 ft³/s (6.43 m³/s) June 1967, gage height, 8.51 ft (2.594 m), present datum, from rating curve extended above 40 ft³/s (1.1 m³/s) on basis of computation of peak flow through culvert; maximum gage height, 8.72 ft (2.658 m) Aug. 19, 1976, backwater from beaver dam; minimum daily discharge, 3 ft³/s (0.085 m³/s) Feb. 19-24, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98 ft³/s (2.78 m³/s), Oct. 11, gage height, 7.88 ft (2.402 m) from floodmarks; minimum daily, about 4 ft³/s (0.1 m³/s) February 6-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	9.0	6.0	4.5	5.5	5.5	7.1	12	12	12	12
2	16	18	9.0	6.0	4.5	5.0	5.5	7.5	11	11	11	11
3	15	18	9.0	6.0	4.5	5.0	6.0	6.9	12	12	10	10
4	15	17	9.0	6.0	4.5	5.0	6.0	6.7	12	14	9.6	9.8
5	15	17	8.5	5.5	4.5	5.0	6.0	6.7	14	13	9.0	10
6	18	16	8.5	5.5	4.0	5.0	6.0	6.5	16	12	9.6	11
7	34	15	8.5	5.5	4.0	4.5	6.5	6.5	15	11	10	12
8	50	15	8.0	5.5	4.0	4.5	6.5	6.5	14	11	8.1	15
9	70	14	8.0	5.5	4.0	4.5	6.5	6.5	13	11	7.9	16
10	80	14	8.0	5.5	4.0	5.0	7.0	6.5	12	10	8.7	17
11	90	14	8.0	5.5	4.0	5.0	7.0	6.7	11	10	9.0	18
12	75	13	7.5	5.5	4.0	5.0	7.5	7.7	11	11	10	17
13	62	13	7.5	5.0	4.5	5.5	7.5	7.5	10	11	11	14
14	53	13	7.5	5.0	4.5	5.5	8.0	7.3	16	9.8	16	12
15	47	13	7.5	5.0	5.0	5.5	8.0	7.1	21	9.2	18	12
16	42	12	7.0	5.0	5.0	6.0	8.5	7.1	22	9.2	19	11
17	37	12	7.0	5.0	5.0	6.0	8.5	6.9	22	9.0	20	10
18	33	13	7.0	5.0	5.0	5.5	8.5	6.7	19	10	19	11
19	31	14	7.0	5.0	5.5	5.5	9.0	6.3	17	9.8	18	11
20	30	15	7.0	5.0	5.5	5.5	9.0	6.3	14	8.7	16	12
21	28	14	7.0	5.0	5.5	5.0	9.0	6.1	12	8.7	16	12
22	28	12	7.0	5.0	5.5	5.0	9.0	6.1	12	9.0	16	12
23	28	11	7.0	5.0	5.5	5.0	9.0	6.1	11	8.7	19	12
24	27	11	6.5	5.0	5.5	5.0	8.5	6.9	10	9.8	18	11
25	26	10	7.0	5.0	5.5	5.0	8.5	7.3	11	12	18	11
26	28	10	6.5	5.0	5.5	5.0	8.3	7.5	13	18	15	13
27	26	10	6.5	5.0	5.5	5.0	8.1	8.5	12	21	15	14
28	25	10	6.5	5.0	5.5	5.0	7.9	13	11	22	13	13
29	23	9.5	6.5	5.0	---	5.0	7.5	13	11	19	12	12
30	21	9.5	6.5	5.0	---	5.5	7.3	13	12	17	14	12
31	20	---	6.0	5.0	---	5.5	---	13	---	14	11	---
TOTAL	1109	402.0	231.5	163.0	134.5	160.0	226.1	237.5	409	373.9	418.9	373.8
MEAN	35.8	13.4	7.47	5.26	4.80	5.16	7.54	7.66	13.6	12.1	13.5	12.5
MAX	90	19	9.0	6.0	5.5	6.0	9.0	13	22	22	20	18
MIN	15	9.5	6.0	5.0	4.0	4.5	5.5	6.1	10	8.7	7.9	9.8
CFSM	2.22	.83	.46	.33	.30	.32	.47	.48	.85	.75	.84	.78
IN.	2.56	.93	.53	.38	.31	.37	.52	.55	.94	.86	.97	.86
AC-FT	2200	797	459	323	267	317	448	471	811	742	831	741

WTR YR 1978 TOTAL 4239.2 MEAN 11.6 MAX 90 MIN 4.0 CFSM .72 IN 9.79 AC-FT 8410

15300500 KVICHAK RIVER AT IGIUGIG

LOCATION.--Lat 59°19'44", long 155°53'57", in NE¼ sec.7, T.10 S., R.39 W., Hydrologic Unit 19040002, on left bank 0.7 mi (1.1 km) downstream from outlet of Iliamna Lake at Igiugig.

DRAINAGE AREA.--6,500 mi² (16,800 km²), approximately.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 45 ft (14 m), from topographic map. Prior to Oct. 1, 1969, nonrecording gage at site 1,500 ft (460 m) upstream at different datum.

REMARKS.--Records good except those for the periods of no gage-height record, Nov. 13 to Apr. 18 and June 1 to Sept. 10, which are poor and fair, respectively. Discharge affected by storage in Lake Iliamna, Lake Clark, and other smaller lakes covering over 1,100 mi² (2,800 km²). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 17,120 ft³/s (484.8 m³/s), 35.76 in/yr (908 mm/yr), 12,400,000 acre-ft/yr (15.3 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43,000 ft³/s (1,220 m³/s) Sept. 21, 22, 1967; minimum daily, 6,400 ft³/s (181 m³/s) Apr. 21,22, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,700 ft³/s (1,070 m³/s) Oct. 6, gage height, 22.57 ft (6.879 m); minimum, 9,330 ft³/s (264 m³/s) Apr. 25, gage height, 17.91 ft (5.459 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35800	30800	23000	18000	14000	12000	10000	9540	12000	14000	18000	20000
2	36500	30700	22000	18000	14000	12000	10000	9570	12000	14000	18000	20000
3	35600	30600	22000	18000	14000	12000	10000	9570	12000	14000	18000	20000
4	34800	30100	22000	17000	14000	12000	10000	9630	12000	14000	19000	20000
5	35100	30100	22000	17000	14000	12000	10000	9810	12000	14000	19000	20000
6	37000	29500	22000	17000	14000	12000	10000	9940	12000	14000	19000	20000
7	37000	29200	22000	17000	14000	12000	10000	9570	12000	14000	19000	20000
8	36000	29900	22000	17000	13000	12000	10000	9970	12000	14000	19000	20000
9	36000	29000	21000	17000	13000	12000	10000	10100	12000	15000	19000	20000
10	36000	29000	21000	16000	13000	12000	10000	9870	12000	15000	19000	20000
11	36000	27700	21000	16000	13000	12000	10000	9940	12000	15000	19000	21300
12	36000	27200	20000	16000	13000	12000	10000	10100	12000	15000	20000	21200
13	35900	27000	20000	16000	13000	11000	10000	9900	13000	15000	20000	21300
14	36600	26000	20000	16000	13000	11000	10000	9900	13000	16000	20000	20700
15	36400	26000	20000	16000	13000	11000	10000	10400	13000	16000	20000	20700
16	36100	25000	20000	16000	13000	11000	10000	10500	13000	16000	20000	20600
17	35800	25000	20000	15000	12000	11000	10000	10200	13000	16000	20000	22100
18	34800	25000	20000	15000	12000	11000	10000	10100	13000	16000	20000	21700
19	35100	24000	20000	15000	12000	11000	10400	10100	13000	17000	20000	20700
20	35900	24000	19000	15000	12000	11000	9810	10100	13200	17000	20000	20800
21	35000	24000	19000	15000	12000	11000	9570	10200	13000	17000	20000	20700
22	34200	24000	19000	15000	12000	11000	9570	10200	13000	17000	20000	20500
23	34000	24000	19000	15000	12000	11000	9660	10900	13000	17000	20000	20500
24	33600	24000	19000	15000	12000	11000	9570	10600	13000	17000	21000	20700
25	34700	23000	19000	15000	12000	11000	9510	10600	13000	17200	21000	20800
26	33100	23000	19000	15000	12000	11000	9690	10700	13000	17000	21000	20600
27	31900	23000	19000	15000	12000	11000	9660	10800	14000	17000	21000	20400
28	31600	23000	18000	14000	12000	11000	9660	10800	14000	17000	21000	20400
29	31500	23000	18000	14000	---	10000	9630	11000	14000	18000	21000	20300
30	31500	23000	18000	14000	---	10000	9630	11100	14000	18000	21000	20200
31	31100	---	18000	14000	---	10000	---	11400	---	18000	21000	---
TOTAL	1080600	789800	624000	489000	359000	350000	296360	317110	382200	491200	614000	616200
MEAN	34860	26330	20130	15770	12820	11290	9879	10230	12740	15850	19810	20540
MAX	37000	30800	23000	18000	14000	12000	10400	11400	14000	18000	21000	22100
MIN	31100	23000	18000	14000	12000	10000	9510	9540	12000	14000	18000	20000
CFSM	5.36	4.05	3.10	2.43	1.97	1.74	1.52	1.57	1.96	2.44	3.05	3.16
IN.	6.18	4.52	3.57	2.80	2.05	2.00	1.70	1.81	2.19	2.81	3.51	3.53
AC-FT	2143000	1567000	1238000	969900	712100	694200	587800	629000	758100	974300	1218000	1222000

CAL YR 1977 TOTAL 8662000 MEAN 23730 MAX 39400 MIN 13400 CFSM 3.65 IN 49.57 AC-FT 17180000
WTR YR 1978 TOTAL 6409470 MEAN 17560 MAX 37000 MIN 9510 CFSM 2.70 IN 36.68 AC-FT 12710000

15302000 NUYAKUK RIVER NEAR DILLINGHAM

LOCATION.--Lat 59°56'04", long 158°11'05", in NE¼ sec.10, T.3 S., R.52 W., Hydrologic Unit 19040002, on left bank 1,000 ft (300 m) downstream from Tikchik Lake, 0.5 mi (0.8 km) upstream from unnamed tributary, and 62 mi (100 km) north of Dillingham.

DRAINAGE AREA.--1,490 mi² (3,860 km²), approximately.

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WRD Alaska 1972: 1971.

GAGE.--Water-stage recorder. Altitude of gage is 325 ft (99 m), from topographic map. Prior to Oct. 1, 1957, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for period of no gage-height record, Nov. 16 to June 19, which are poor. Discharge affected by storage in Tikchik Lake, Nuyakuk Lake, Lake Chauekuktuli, and other smaller lakes in the basin covering over 170 mi² (440 km²).

AVERAGE DISCHARGE.--25 years, 5,953 ft³/s (168.6 m³/s), 54.26 in/yr (1,378 mm/yr), 4,313,000 acre-ft/yr (5.32 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft³/s (912 m³/s) July 2, 1977, gage height, 10.49 ft (3.197 m); minimum daily, about 770 ft³/s (21.8 m³/s) Apr. 16-30, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,900 ft³/s (507 m³/s) July 13, gage height, 7.32 ft (2.231 m); minimum, 1,680 ft³/s (47.6 m³/s) Apr. 13, from discharge measurement, but minimum may have been less during period of no gage-height record in April.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6210	4750	2900	2400	2200	2000	1700	3400	15000	13700	12000	7500
2	6030	4600	2800	2400	2200	2000	1700	3800	15000	13300	11600	7400
3	5880	4500	2800	2400	2200	2000	1700	4200	15000	13700	11200	7300
4	5820	4300	2700	2400	2200	2000	1700	4600	14500	14600	10900	7400
5	5680	4170	2700	2400	2200	2000	1700	5200	14500	15300	10600	7700
6	5780	4130	2700	2400	2200	2000	1700	5800	14000	15700	10300	8200
7	5940	4040	2700	2400	2200	2000	1700	6500	14000	16000	9900	8400
8	5740	4000	2600	2400	2100	2000	1700	7000	14000	16300	9590	8300
9	6190	4000	2600	2400	2100	2000	1700	7600	14000	17000	9370	8200
10	6540	3900	2600	2400	2100	2000	1700	8500	14000	17200	9420	8300
11	6640	3900	2500	2400	2100	2000	1700	9400	14000	17400	8870	8400
12	6640	3900	2500	2400	2100	2000	1700	10000	14000	17700	9080	9000
13	6600	3850	2500	2300	2100	2000	1690	11000	14500	17800	9130	9790
14	6710	3850	2500	2300	2100	1900	1700	12000	15000	17700	9130	9940
15	6870	3830	2500	2300	2000	1900	1700	13000	15000	17400	8970	9910
16	6760	3800	2500	2300	2000	1900	1700	13500	15500	17100	8820	9740
17	6420	3800	2500	2300	2000	1900	1700	14000	15500	16200	8640	9550
18	6130	3700	2400	2300	2000	1900	1700	14500	15500	16300	8410	9560
19	6060	3700	2400	2300	2000	1900	1700	14000	15500	15800	8120	9660
20	5940	3600	2400	2300	2000	1900	1800	14000	15800	16300	8060	9640
21	5820	3500	2400	2300	2000	1900	1800	14000	15700	16200	7970	9430
22	5800	3500	2400	2300	2000	1800	1900	14500	15700	16000	7880	9070
23	5680	3400	2400	2300	2000	1800	2000	15000	15900	15600	7730	8900
24	5530	3300	2400	2300	2000	1800	2100	15500	15800	15300	7670	8540
25	5330	3200	2400	2300	2000	1800	2200	16000	15600	14900	7530	8330
26	5300	3200	2400	2300	2000	1800	2300	16000	15500	14500	7270	8250
27	5310	3100	2400	2300	2000	1800	2400	16000	15100	13900	7070	8170
28	5230	3000	2400	2300	2000	1800	2600	16000	14700	13500	6810	7980
29	5140	3000	2400	2300	---	1700	2800	15500	14400	13000	7070	7730
30	5000	2900	2400	2200	---	1700	3100	15500	14100	12600	7200	7500
31	4900	---	2400	2200	---	1700	---	15000	---	12300	7400	---
TOTAL	183620	112420	78200	72300	58100	58900	57290	351000	446800	480300	273710	257790
MEAN	5923	3747	2523	2332	2075	1900	1910	11320	14890	15490	8829	8593
MAX	6870	4750	2900	2400	2200	2000	3100	16000	15900	17800	12000	9940
MIN	4900	2900	2400	2200	2000	1700	1690	3400	14000	12300	6810	7300
CFSM	3.98	2.52	1.69	1.57	1.39	1.28	1.28	7.60	9.99	10.4	5.93	5.77
IN.	4.58	2.81	1.95	1.81	1.45	1.47	1.43	8.76	11.15	11.99	6.83	6.44
AC-FT	364200	223000	155100	143400	115200	116800	113600	696200	886200	952700	542900	511300

CAL YR 1977 TOTAL 3166620 MEAN 8676 MAX 32100 MIN 1600 CFSM 5.82 IN 79.06 AC-FT 6281000
WTR YR 1978 TOTAL 2430430 MEAN 6659 MAX 17800 MIN 1690 CFSM 4.47 IN 60.68 AC-FT 4821000

15302500 NUSHAGAK RIVER AT EKWOK

LOCATION.--Lat 59°20'57", long 157°28'23", in SE¼SE¼ sec.35, T.9 S., R.48 W., Hydrologic Unit 19040002, on right bank at Ekwok, 0.6 mi (1.0 km) upstream from Klutuk Creek, and 40 mi (64 km) northeast of Dillingham.

DRAINAGE AREA.--9,850 mi² (25,500 km²), approximately.

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Nonrecording gage. Altitude of gage is 90 ft (27 m), from topographic map.

REMARKS.--Records poor for period of no gage-height record prior to June 19, fair thereafter. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 87,100 ft³/s (2,470 m³/s) Oct. 12, gage height, 10.64 ft (3.243 m), from floodmarks; minimum daily, about 9,500 ft³/s (270 m³/s) Mar. 26 to Apr. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54000	29000	17000	14000	12000	10000	9500	14000	36000	29200	27100	21000
2	52000	28000	17000	14000	12000	10000	9500	14000	37000	28900	26600	21000
3	51000	27000	17000	14000	12000	10000	9500	14000	38000	29100	25300	20800
4	50000	27000	16000	14000	12000	10000	9500	14000	38000	30500	24600	20600
5	49000	27000	16000	14000	12000	10000	9500	14000	37000	37100	24100	21200
6	50000	26000	16000	14000	12000	10000	9500	15000	36000	37500	23200	22000
7	52000	26000	16000	14000	12000	10000	9500	15000	34000	35600	22900	23200
8	56000	26000	16000	14000	12000	10000	9500	16000	32000	33900	22600	23200
9	62000	26000	16000	14000	12000	10000	9500	18000	31000	33000	22600	23400
10	72000	25000	16000	14000	12000	10000	10000	20000	32000	31900	22600	23800
11	80000	25000	16000	13000	11000	10000	10000	23000	31000	32800	22500	25600
12	84000	24000	16000	13000	11000	10000	10000	26000	30000	32900	23100	24900
13	80000	24000	16000	13000	11000	10000	10400	30000	31000	33900	23400	25100
14	71000	23000	16000	13000	11000	10000	10500	35000	32000	36000	24600	26000
15	56400	23000	16000	13000	11000	10000	10500	38000	34000	36100	25200	27100
16	50000	23000	16000	13000	11000	10000	10500	39000	37000	36000	25700	26100
17	46000	22000	16000	13000	11000	10000	10500	40000	38000	33500	25300	25000
18	43000	22000	15000	13000	11000	10000	10500	41000	38000	32400	24100	24600
19	42000	21000	15000	13000	11000	10000	10500	43000	37000	31600	23400	25800
20	40000	21000	15000	13000	11000	10000	11000	46000	35200	31600	23000	26600
21	39000	20000	15000	13000	11000	10000	11000	47000	33600	32900	23200	25900
22	38000	20000	15000	13000	11000	10000	11000	49000	33700	33100	22800	24300
23	36000	19000	15000	13000	11000	10000	11000	48000	34700	34100	22400	23400
24	34000	19000	15000	13000	11000	10000	11000	48000	36000	34200	22500	22800
25	33000	19000	15000	13000	11000	10000	11000	48000	34900	33400	21900	22200
26	33000	18000	15000	13000	10000	9500	11000	46000	34700	32700	21600	22100
27	32000	18000	15000	13000	10000	9500	12000	44000	34100	33800	20800	23000
28	32000	18000	15000	12000	10000	9500	12000	42000	32900	34400	20200	23700
29	31000	18000	15000	12000	---	9500	13000	40000	31000	32900	19800	23000
30	30000	17000	14000	12000	---	9500	13000	38000	30700	29700	19900	22800
31	29000	---	14000	12000	---	9500	---	37000	---	27700	20800	---
TOTAL	1507400	681000	483000	409000	315000	307000	315900	1002000	1030500	1022400	717800	710200
MEAN	48630	22700	15580	13190	11250	9903	10530	32320	34350	32980	23150	23670
MAX	84000	29000	17000	14000	12000	10000	13000	49000	38000	37500	27100	27100
MIN	29000	17000	14000	12000	10000	9500	9500	14000	30000	27700	19800	20600
CFSM	4.94	2.31	1.58	1.34	1.14	1.01	1.07	3.28	3.49	3.35	2.35	2.40
IN.	5.69	2.57	1.82	1.54	1.19	1.16	1.19	3.78	3.89	3.86	2.71	2.68
AC-FT	2990000	1351000	958000	811300	624800	608900	626600	1987000	2044000	2028000	1424000	1409000

WTR YR 1978 TOTAL 8501200 MEAN 23290 MAX 84000 MIN 9500 CFSM 2.36 IN 32.11 AC-FT 16860000

BEST DOCUMENT AVAILABLE

15303150 SNAKE RIVER NEAR DILLINGHAM

LOCATION.--Lat 59°08'54", long 158°53'14", in NW¼SW¼ sec.9, T.12 S., R.57 W., Hydrologic Unit 19030002, on right bank at outlet of Lake Nunavaugaluk, 15 mi (24 km) northwest of Dillingham.

DRAINAGE AREA.--113 mi² (293 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 34 ft (10.4 m), from topographic map.

REMARKS.--Water-discharge records fair prior to Nov. 20 and after Apr. 24, poor otherwise. Discharge affected by storage in Lake Nunavaugaluk, surface area of 32 mi² (83 km²).

AVERAGE DISCHARGE.--5 years, 487 ft³/s (13.79 m³/s), 58.53 in/yr (1,487 mm/yr), 352,800 acre-ft/yr (435 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s (70.0 m³/s) June 17, 1977, gage height, 6.81 ft (2.076 m); minimum daily, about 70 ft³/s (1.98 m³/s) Jan. 31 and Feb. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) May 25, gage height, 5.71 ft (1.740 m); minimum daily, about 100 ft³/s (2.83 m³/s) Dec. 16-19 and Feb. 8-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	331	150	120	130	130	170	428	1190	734	559	808
2	355	300	150	120	130	130	180	467	1160	713	552	785
3	343	340	140	120	120	130	190	506	1120	748	526	792
4	355	319	130	120	120	130	200	545	1080	762	500	822
5	349	290	130	110	120	130	200	566	1080	755	467	905
6	397	273	120	110	110	130	210	594	1060	762	460	950
7	415	260	120	110	110	130	220	622	1030	762	434	980
8	434	250	120	110	100	130	230	664	980	770	428	1030
9	545	260	120	110	100	140	230	755	882	860	434	1040
10	594	250	120	120	100	140	240	838	800	890	434	1040
11	615	240	120	120	100	140	240	905	770	920	422	1040
12	622	230	120	120	110	140	240	965	755	942	428	1030
13	615	230	120	120	110	140	245	1040	770	942	428	1010
14	601	230	120	120	110	140	250	1070	838	920	422	1000
15	587	220	110	120	120	140	250	1160	882	905	415	950
16	573	260	100	120	120	140	240	1180	890	868	403	920
17	538	300	100	130	120	140	240	1190	898	830	397	905
18	526	330	100	130	120	140	230	1200	905	808	385	905
19	512	319	100	130	120	140	230	1190	890	815	367	898
20	500	307	110	130	120	140	230	1180	875	822	361	875
21	493	290	110	130	130	150	230	1170	875	838	385	845
22	467	270	110	130	130	150	240	1170	898	830	391	800
23	448	250	110	130	130	150	240	1210	905	800	391	770
24	428	230	110	130	130	150	251	1320	890	785	397	727
25	434	220	120	130	130	150	268	1360	882	762	385	720
26	467	200	120	130	130	160	284	1360	860	748	467	748
27	441	190	120	140	130	160	301	1350	822	727	622	741
28	415	180	120	140	130	160	343	1330	800	706	587	713
29	397	170	120	140	---	170	379	1300	778	664	671	699
30	385	160	120	140	---	170	403	1260	755	636	748	671
31	367	---	120	140	---	170	---	1230	---	601	778	---
TOTAL	14585	7699	3680	3870	3330	4460	7404	31117	27320	24625	14644	26127
MEAN	470	257	119	125	119	144	247	1004	911	794	472	871
MAX	622	340	150	140	130	170	403	1360	1190	942	778	1040
MIN	343	160	100	110	100	130	170	428	755	601	361	671
CFSM	4.16	2.27	1.05	1.11	1.05	1.27	2.19	8.89	8.06	7.03	4.18	7.71
IN.	4.80	2.53	1.21	1.27	1.10	1.47	2.44	10.24	8.99	8.11	4.82	8.60
AC-FT	28930	15270	7300	7680	6610	8850	14690	61720	54190	48840	29050	51820

CAL YR 1977 TOTAL 224193 MEAN 614 MAX 2410 MIN 70 CFSM 5.43 IN 73.80 AC-FT 444700
WTR YR 1978 TOTAL 168861 MEAN 463 MAX 1360 MIN 100 CFSM 4.10 IN 55.59 AC-FT 334900

NOTE.--No gage-height record Nov. 21 to Apr. 23.

15303150 SNAKE RIVER NEAR DILLINGHAM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1974 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 22, 1974.

REMARKS.--No record Nov. 30 to Apr. 12 and June 9 to Sept. 30, due to recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 17.0°C Aug. 2, 11, 1975; minimum, 0.0°C on many days during winter periods most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum and minimum not determined.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.5	7.0	4.0	3.5								
2	9.0	8.0	4.0	3.5								
3	9.0	8.5	4.0	2.5								
4	9.0	8.0	3.5	3.0								
5	8.5	7.5	3.5	1.5								
6	8.0	7.0	3.5	2.0								
7	7.5	6.5	3.0	2.0								
8	7.5	6.5	3.0	1.5								
9	8.0	7.5	3.0	1.0								
10	8.0	6.5	3.0	2.0								
11	7.5	7.0	3.0	1.5								
12	7.5	7.0	2.5	1.0								
13	7.5	7.0	1.0	1.0								
14	7.5	6.5	2.0	1.0								
15	7.0	6.0	2.0	2.0								
16	6.0	4.0	2.0	1.0								
17	5.0	3.5	1.0	.5								
18	6.0	4.5	2.5	.5								
19	5.5	4.0	2.5	2.0								
20	4.5	3.0	2.5	2.5								
21	5.0	4.0	2.5	2.0								
22	5.5	4.5	2.0	1.0								
23	5.0	4.5	1.5	.5								
24	5.0	4.0	.5	.5								
25	5.0	3.5	.5	.5								
26	5.0	3.5	.5	.5								
27	4.5	3.0	.5	.5								
28	4.0	3.5	.5	.5								
29	4.0	4.0	.5	.5								
30	4.5	3.0	---	---								
31	4.0	3.0	---	---								
MONTH	9.5	3.0	4.0	.5								

15303150 SNAKE RIVER NEAR DILLINGHAM--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	3.0	2.5	3.5	3.5						
2	---	---	3.0	3.0	4.0	3.5						
3	---	---	3.0	3.0	3.5	3.5						
4	---	---	3.0	3.0	3.5	3.0						
5	---	---	3.0	3.0	3.0	3.0						
6	---	---	3.0	3.0	3.0	3.0						
7	---	---	3.0	3.0	3.5	3.0						
8	---	---	3.0	3.0	4.0	3.5						
9	---	---	3.0	3.0	---	---						
10	---	---	3.0	2.5	---	---						
11	---	---	3.0	3.0	---	---						
12	---	---	3.0	3.0	---	---						
13	3.0	3.0	3.0	3.0	---	---						
14	3.0	3.0	3.5	3.0	---	---						
15	3.5	3.0	3.0	2.5	---	---						
16	3.5	3.0	3.0	2.5	---	---						
17	3.5	3.0	3.0	2.0	---	---						
18	3.5	3.0	2.5	2.5	---	---						
19	3.0	3.0	3.0	2.5	---	---						
20	3.0	3.0	3.0	3.0	---	---						
21	3.5	2.5	3.0	3.0	---	---						
22	3.0	2.5	3.0	3.0	---	---						
23	3.5	3.0	3.0	3.0	---	---						
24	3.0	3.0	3.5	3.0	---	---						
25	3.0	3.0	3.5	3.0	---	---						
26	3.5	3.0	3.5	3.5	---	---						
27	3.0	3.0	3.5	3.5	---	---						
28	3.0	2.5	3.5	3.5	---	---						
29	3.0	2.5	4.0	3.5	---	---						
30	3.0	3.0	4.0	3.5	---	---						
31	---	---	3.5	3.5	---	---						
MONTH	3.5		4.0	2.0								
YEAR	9.5											

15304000 KUSKOKWIM RIVER AT CROOKED CREEK
(National stream-quality accounting and radiochemical networks station)

LOCATION.--Lat 61°52'16", long 158°06'03", in NE¼NE¼ sec.32, T.21 N., R.48 W., Hydrologic Unit 19040001, on right bank at village of Crooked Creek, 0.5 mi (0.8 km) upstream from Crooked Creek. Prior to Aug. 6, 1977, at site 600 ft (180 m) downstream.

DRAINAGE AREA.--31,100 mi² (80,500 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (61 m), from topographic map. Prior to Aug. 6, 1977, nonrecording gage at site 600 ft (180 m) downstream at same datum.

REMARKS.--Water-discharge records fair except those prior to Jan. 30 and those for Apr. 15 to May 29, which are poor.

AVERAGE DISCHARGE.--27 years, 41,280 ft³/s (1,169 m³/s), 18.03 in/yr (458 mm/yr), 29,910,000 acre-ft/yr (36.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392,000 ft³/s (11,100 m³/s) June 5, 1964, gage height, 25.74 ft (7.846 m); maximum gage height, 26.36 ft (8.034 m) about May 15, 1968, from floodmarks, backwater from ice; minimum daily discharge, about 6,100 ft³/s (170 m³/s) Mar. 1-31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, about 94,000 ft³/s (2,660 m³/s) Oct. 1, stage falling, peak occurred Sept. 25, 1977, maximum peak discharge, 73,000 ft³/s (2,070 m³/s) July 28, gage height, 7.55 ft (2.301 m); minimum daily discharge, about 9,600 ft³/s (272 m³/s) Apr. 16-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94000	31000	19000	15000	12000	11000	10000	12000	38000	59000	60000	46500
2	87000	30000	19000	15000	12000	11000	10000	13000	37000	59400	58000	46000
3	82000	29000	19000	15000	12000	11000	10000	13000	37000	58500	57000	45000
4	78000	29000	19000	15000	12000	11000	9900	14000	36000	58100	55700	44500
5	75000	28000	18000	14000	12000	11000	9900	14000	35000	57800	55200	43900
6	72000	28000	18000	14000	12000	11000	9900	15000	34000	57700	55400	43100
7	69000	27000	18000	14000	12000	11000	9900	16000	34000	57100	55000	43400
8	66000	27000	18000	14000	12000	11000	9900	16000	34800	56100	56000	43800
9	63000	26000	18000	14000	12000	11000	9900	17000	35300	54300	55000	43300
10	60000	26000	18000	14000	12000	11000	9900	18000	34700	52100	54000	43200
11	58000	25000	18000	14000	12000	11000	9800	20000	34100	50900	53000	43900
12	55000	25000	17000	14000	12000	11000	9800	21000	33600	51300	52000	42700
13	53000	25000	17000	14000	12000	11000	9700	23000	33400	51700	51000	41200
14	51000	24000	17000	14000	12000	11000	9700	24000	34000	52100	50000	39900
15	50000	24000	17000	14000	12000	11000	9700	26000	35000	52300	49000	39300
16	48000	23000	17000	14000	12000	11000	9600	28000	36700	53300	48000	39100
17	47000	23000	16000	14000	12000	10000	9600	31000	40500	55500	49000	40100
18	45000	23000	16000	13000	12000	10000	9600	34000	42800	56900	50000	41000
19	44000	22000	16000	13000	12000	10000	9600	38000	42800	57800	49000	41000
20	42000	22000	16000	13000	12000	10000	9800	42000	41400	57700	48000	40000
21	41000	22000	16000	13000	12000	10000	9800	46000	40500	59400	50000	40000
22	40000	21000	16000	13000	11000	10000	10000	50000	40000	62800	55900	39000
23	39000	21000	16000	13000	11000	10000	10000	51000	41600	63500	61700	38000
24	38000	21000	16000	13000	11000	10000	10000	52000	45400	63800	62000	37000
25	37000	21000	15000	13000	11000	10000	10000	50000	51800	65600	62900	36000
26	36000	20000	15000	13000	11000	10000	10000	48000	56300	67800	63400	36000
27	35000	20000	15000	13000	11000	10000	11000	46000	56600	70300	61000	35100
28	33000	20000	15000	13000	11000	10000	11000	44000	59900	72300	57600	34000
29	33000	20000	15000	13000	---	10000	11000	42000	61800	70200	53900	33000
30	32000	19000	15000	13000	---	10000	12000	40000	60300	66400	51100	32000
31	31000	---	15000	13000	---	10000	---	39000	---	63100	48300	---
TOTAL	1634000	722000	520000	424000	329000	326000	301000	943000	1243600	1934800	1689700	1210900
MEAN	52710	24070	16770	13680	11750	10520	10030	30420	41450	59190	54510	40360
MAX	94000	31000	19000	15000	12000	11000	12000	52000	61800	72300	63400	46500
MIN	31000	19000	15000	13000	11000	10000	9600	12000	33400	50900	48000	32000
CFSM	1.70	.77	.54	.44	.38	.34	.32	.98	1.33	1.90	1.75	1.30
IN.	1.95	.86	.62	.51	.39	.39	.36	1.13	1.49	2.19	2.02	1.45
AC-FT	3241000	1432000	1031000	841000	652600	646600	597000	1870000	2467000	3639000	3352000	2402000

CAL YR 1977 TOTAL 15657500 MEAN 42900 MAX 170000 MIN 9500 CFSM 1.38 IN 18.73 AC-FT 31060000
WTR YR 1978 TOTAL 11178000 MEAN 30620 MAX 94000 MIN 9600 CFSM .99 IN 13.37 AC-FT 22170000

BEST DOCUMENT AVAILABLE

15304000 KUSKOKWIM RIVER AT CROOKED CREEK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1955-72, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1957 to July 1967 (once-daily readings during open-water season), July to September 1977, and June to September 1978.

INSTRUMENTATION.--Temperature recorder since July 20, 1977.

REMARKS.--Temperature recorder removed from river during winter periods prior to June 1 and after Sept. 26. Records represent water temperature at sensor within 0.5°C. Temperature at the sensor was compared with the average for the river by temperature cross sections June 27, Aug. 21, and Sept. 27. A maximum variation of 0.5°C was found within the cross sections.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.0°C July 28, 1959, June 22, 1960, July 15, 1961; minimum, 0.0°C during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.5°C Aug. 5 and 6; minimum, 0.0°C during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)
JAN										
31...	1700	925	--	12700	230	7.0	.0	3.0	760	--
31...	1701	--	425	--	245	--	.0	--	--	7.2
31...	1702	--	275	--	230	--	.0	--	--	7.2
31...	1703	--	100	--	205	--	.0	--	--	6.8
APR										
10...	2000	--	--	9850	317	6.5	.0	5.0	743	--
10...	2001	820	370	--	--	6.5	.0	--	--	7.1
10...	2002	820	220	--	--	6.5	.0	--	--	7.3
10...	2003	820	20	--	--	--	.0	--	--	--
MAY										
30...	1600	--	--	40600	--	--	--	4.2	--	--
30...	1601	--	E800	--	160	8.0	11.5	--	--	12.0
30...	1602	--	E400	--	125	8.0	10.5	--	--	12.0
30...	1603	--	E200	--	122	--	10.0	--	--	12.0
JUN										
27...	0800	1215	--	59800	--	--	--	26	765	--
27...	0801	--	1050	--	155	7.4	10.0	--	--	11.2
27...	0802	--	900	--	152	7.6	10.5	--	--	11.1
27...	0803	--	775	--	152	7.6	10.5	--	--	11.2
27...	0804	--	675	--	145	7.6	10.5	--	--	11.0
27...	0805	--	500	--	142	7.6	10.5	--	--	11.2
AUG										
21...	1600	1175	--	51900	180	7.2	--	60	768	--
21...	1601	--	1150	--	181	--	11.5	--	--	10.4
21...	1602	--	950	--	183	7.1	11.5	--	--	10.4
21...	1603	--	750	--	180	7.3	12.0	--	--	10.5
21...	1604	--	550	--	180	7.4	12.0	--	--	10.4
21...	1605	--	350	--	175	7.4	12.0	--	--	10.4
SEP										
27...	1800	--	--	35200	202	7.8	--	6.4	756	--
27...	1801	--	400	--	182	7.8	6.5	--	--	12.0
27...	1802	--	550	--	188	7.8	6.0	--	--	12.0
27...	1803	--	700	--	205	7.7	6.0	--	--	12.0
27...	1804	--	850	--	210	7.6	6.0	--	--	12.0
27...	1805	--	1000	--	210	7.7	6.0	--	--	12.0

E Estimated

15304000 KUSKOKWIM RIVER AT CROOKED CREEK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
JAN 31...	1700	<1	--	130	18	38	7.5	1.3	.9	132	0
APR 10...	2000	<1	<1	160	15	47	11	3.3	1.6	180	0
MAY 30...	1600	K4	<1	77	10	22	5.3	1.9	.7	--	0
JUN 27...	0800	K11	K3	71	14	20	5.1	1.8	.7	70	0
AUG 21...	1600	K11	K7	90	21	26	6.1	2.5	1.0	84	0
SEP 27...	1800	K3	<1	95	12	27	6.8	2.1	.8	102	0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
JAN 31...	15	.9	.2	13	135	142	.20	.04	.05	.09
APR 10...	20	1.3	.1	12	174	185	.19	.09	.26	.35
MAY 30...	12	.8	.1	7.0	88	90	.03	.04	.89	.93
JUN 27...	12	.7	.1	6.1	88	81	.08	.01	.18	.19
AUG 21...	19	.7	.2	7.5	105	105	.06	.06	.24	.30
SEP 27...	19	.6	.2	8.7	122	116	.08	.01	.24	.25

DATE	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
JAN 31...	.04	.05	.29	.02	.01	--	--	--	--	--
APR 10...	.06	.29	.54	.14	.10	--	--	--	--	--
MAY 30...	.76	.17	.96	.02	.01	--	--	--	--	--
JUN 27...	.04	.15	.27	.11	.00	1.3	7.4	1.6	4.0	1.5
AUG 21...	.13	.17	.36	.11	.00	<1.1	10	1.3	6.8	1.3
SEP 27...	.04	.21	.33	.04	.01	--	--	--	--	--

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN 31...	--	--	--	--	1.8	--	13	4	137	--
APR 10...	--	--	--	--	--	--	--	2	53	--
MAY 30...	--	--	--	--	--	--	600	36	3950	--
JUN 27...	3.6	.11	.47	4.5	3.9	.6	--	115	18600	48
AUG 21...	6.4	.04	.70	--	3.0	.8	--	129	18100	86
SEP 27...	--	--	--	--	3.0	.7	--	20	1900	--

K NON-IDEAL COLONY COUNT

15304000 KUSKOKWIM RIVER AT CROOKED CREEK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
JAN 31...	1700	1	0	1	100	0	200	1	0	1
JUN 27...	0800	2	1	1	300	0	300	1	1	0
AUG 21...	1600	5	4	1	200	0	200	1	1	0
SEP 27...	1800	2	1	1	0	0	0	0	0	0

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JAN 31...	0	0	0	1	1	0	7	6	1	640
JUN 27...	10	10	0	1	1	0	13	10	3	4300
AUG 21...	10	10	0	2	2	0	20	18	2	7300
SEP 27...	0	0	0	0	0	0	6	5	1	1700

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)
JAN 31...	470	170	6	6	0	30	10	20	.0	.0
JUN 27...	4100	160	11	7	4	110	110	0	.0	.0
AUG 21...	7100	240	21	21	0	170	160	10	.0	.0
SEP 27...	1400	300	9	9	0	40	30	10	.0	.0

DATE	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN 31...	.0	5	0	6	0	0	0	20	10	10
JUN 27...	.0	0	0	0	0	0	0	20	20	0
AUG 21...	.0	1	1	0	0	0	0	90	80	10
SEP 27...	.0	0	0	0	0	0	0	20	10	10

15304000 KUSKOKWIM RIVER AT CROOKED CREEK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

	JAN 31,78	MAY 30,78	AUG 21,78	SEP 27,78
DATE	JAN 31,78	MAY 30,78	AUG 21,78	SEP 27,78
TIME	1700	1600	1600	1800
TOTAL CELLS/ML	13	600	210	210
DIVERSITY: DIVISION	0.0	0.5	0.2	1.1
.CLASS	0.0	0.5	0.2	1.1
..ORDER	1.0	1.4	0.5	1.4
...FAMILY	1.0	2.3	2.5	2.3
....GENUS	1.0	2.5	2.7	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	5	3
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	7	3
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	8	4	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	5	3
....COSMARIUM	--	-	15	2	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	7#	50	--	-	8	4	--	-
....MELOSIRA	--	-	180#	29	--	-	9	4
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	120#	20	8	4	--	-
....COCCONEIS	--	-	--	-	12	6	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	2	1
....CYMBELLA	--	-	--	-	12	6	2	1
...EUNOTIACEAE								
....EUNOTIA	--	-	--	-	8	4	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	29	5	--	-	99#	48
....SYNEDRA	--	-	100#	17	86#	40	14	7
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	5	3
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	4	2
...NAVICULACEAE								
....FRUSTULIA	--	-	--	-	4	2	--	-
....NAVICULA	7#	50	120#	20	29	13	12	6
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	37#	17	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	44	7	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	9	4
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	32#	16

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

15304000 KUSKOKWIM RIVER AT CROOKED CREEK--Continued

TEMPERATURE (DEG. C) OF WATER, JUNE TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	11.0	11.5	10.0	9.5	10.0	16.0	16.0	16.0	12.0	12.0	12.0
2	12.0	11.0	11.5	11.0	10.0	10.5	16.5	16.0	16.5	12.5	12.0	12.5
3	12.5	11.5	12.0	11.5	11.0	11.5	17.5	16.5	17.0	12.5	12.0	12.5
4	12.0	11.5	12.0	12.0	11.5	12.0	18.0	17.0	17.5	12.0	11.5	12.0
5	11.5	11.0	11.5	13.0	12.0	12.5	18.5	18.0	18.5	11.5	11.5	11.5
6	11.0	11.0	11.0	13.0	12.5	13.0	18.5	18.0	18.5	11.5	11.0	11.5
7	11.0	10.5	11.0	14.0	13.0	13.5	18.0	18.0	18.0	11.0	10.5	11.0
8	11.5	11.0	11.5	14.0	13.5	14.0	18.0	17.5	18.0	10.5	10.5	10.5
9	12.5	11.5	12.0	14.0	14.0	14.0	17.5	17.0	17.5	10.5	10.5	10.5
10	13.5	12.0	13.0	14.0	14.0	14.0	17.5	17.0	17.5	10.5	10.5	10.5
11	14.0	13.5	14.0	14.5	14.0	14.5	17.5	17.0	17.5	10.5	10.0	10.5
12	14.0	13.5	14.0	14.5	14.0	14.5	17.0	16.5	17.0	10.0	9.5	10.0
13	14.0	14.0	14.0	14.0	14.0	14.0	16.5	16.0	16.5	9.5	9.0	9.5
14	13.5	13.0	13.5	14.5	14.0	14.5	16.0	15.5	16.0	9.5	9.5	9.5
15	13.0	12.0	12.5	15.5	14.0	15.0	15.5	15.5	15.5	9.5	9.0	9.5
16	12.0	11.5	12.0	15.5	15.5	15.5	15.5	15.5	15.5	9.0	9.0	9.0
17	12.0	11.5	12.0	15.5	14.0	15.0	15.5	14.5	15.0	9.0	8.0	8.5
18	11.5	11.0	11.5	14.5	14.0	14.5	15.5	15.0	15.5	8.5	8.0	8.5
19	11.5	11.5	11.5	14.5	14.0	14.5	15.5	14.5	15.0	8.5	8.0	8.5
20	12.0	11.0	11.5	14.5	13.5	14.0	14.5	13.0	14.0	8.0	7.5	8.0
21	13.0	12.0	12.5	13.5	13.5	13.5	13.0	11.5	12.0	7.5	7.0	7.5
22	13.0	12.0	12.5	14.0	13.5	14.0	11.5	11.5	11.5	6.5	6.5	6.5
23	12.0	10.5	11.0	14.0	14.0	14.0	11.5	11.5	11.5	6.5	5.5	6.0
24	10.5	10.0	10.5	14.5	14.0	14.5	11.5	11.5	11.5	5.5	5.5	5.5
25	10.5	10.0	10.5	14.5	14.0	14.5	12.0	11.5	12.0	6.0	5.5	6.0
26	10.5	10.0	10.5	14.5	14.0	14.5	12.0	11.5	12.0	6.0	6.0	6.0
27	11.0	10.5	11.0	15.0	14.0	14.5	12.0	12.0	12.0	6.0	6.0	6.0
28	11.0	10.5	11.0	15.0	14.5	15.0	12.0	12.0	12.0	---	---	---
29	11.0	10.5	11.0	15.5	15.0	15.5	12.0	12.0	12.0	---	---	---
30	10.5	9.5	10.0	16.0	15.5	16.0	12.0	12.0	12.0	---	---	---
31	---	---	---	16.0	16.0	16.0	12.0	11.5	12.0	---	---	---
MONTH	14.0	9.5	12.0	16.0	9.5	14.0	18.5	11.5	15.0	12.5	5.5	9.0
YEAR	18.5											

15348000 FORTYMILE RIVER NEAR STEELE CREEK

LOCATION.--Lat 64°18'33", long 141°24'08", in SE¼SE¼NW¼ sec.16, T.7 S., R.32 E., Hydrologic Unit 19030001, on left bank 300 ft (91 m) downstream from bridge at mile 112.9 (181.7 km) on Taylor Highway, 0.3 mi (0.5 km) downstream from O'Brien Creek, 0.7 mi (1.1 km) southeast of Alaska Department of Highways road camp, and 4.4 mi (7.1 km) northwest of Steele Creek.

DRAINAGE AREA.--5,880 mi^2 (15,200 km^2), approximately.

PERIOD OF RECORD.--July 1910 to October 1912, published as "at Steele Creek" (no winter records), October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,200.00 ft (365.760 m) National Geodetic Vertical Datum of 1929 (Alaska Department of Highways temporary bench mark). Prior to Oct. 16, 1912 at site 6.8 mi (10.9 km) downstream at different datum.

REMARKS.--Records estimated and poor prior to May 15, fair from May 16 to June 22, and good thereafter. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft^3/s (1,050 m^3/s) (estimated) May 19, 1911, gage height not determined, at site then in use; no flow during winter period in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1964 reached a stage of 34.5 ft (10.52 m) from floodmarks, at previous Taylor Highway bridge and at different datum; discharge, 84,000 ft^3/s (2,380 m^3/s), from rating curve extended above 43,000 ft^3/s (1,220 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,100 ft^3/s (909 m^3/s) June 17, gage height, 83.3 ft (25.39 m) from high-water marks; no flow Jan. 7 to Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2960	48	11	5.0	.00	.00	.00	1000	5700	2820	1860	862
2	2260	43	11	5.0	.00	.00	.00	1300	10300	3640	1550	852
3	1600	38	11	5.0	.00	.00	.00	1600	9210	4920	1400	830
4	1400	33	11	5.0	.00	.00	.00	2000	7900	4220	1330	813
5	1500	30	11	5.0	.00	.00	.00	2500	7060	3070	1200	813
6	1600	27	10	5.0	.00	.00	.00	3000	6080	2360	1100	824
7	1400	24	10	.00	.00	.00	.00	4000	7060	3600	1050	857
8	1200	22	10	.00	.00	.00	.00	5000	10100	6840	1040	956
9	1100	20	10	.00	.00	.00	.00	7000	8760	4590	1000	1020
10	1000	19	10	.00	.00	.00	.00	10000	6660	3100	974	1010
11	900	18	10	.00	.00	.00	5.0	15000	5320	2270	1000	986
12	800	17	10	.00	.00	.00	5.0	18000	4610	1820	1020	980
13	700	17	10	.00	.00	.00	5.0	20000	5320	2260	1160	968
14	600	17	10	.00	.00	.00	5.0	17000	7060	6000	1250	944
15	500	16	5.0	.00	.00	.00	5.0	15000	6080	8830	1270	932
16	430	16	5.0	.00	.00	.00	5.0	12800	5320	8800	1320	908
17	380	15	5.0	.00	.00	.00	5.0	10100	18900	7670	1400	902
18	320	15	5.0	.00	.00	.00	5.0	8110	21000	6560	1350	884
19	280	15	5.0	.00	.00	.00	5.0	6460	11600	5320	1230	862
20	240	14	5.0	.00	.00	.00	5.0	6080	9670	4070	1130	890
21	210	14	5.0	.00	.00	.00	10	5890	6860	3130	1100	956
22	180	14	5.0	.00	.00	.00	20	5140	4780	2490	1090	1040
23	160	13	5.0	.00	.00	.00	50	4440	3830	2140	1090	1130
24	140	13	5.0	.00	.00	.00	100	3900	7800	2030	1120	1250
25	120	13	5.0	.00	.00	.00	150	3600	7630	1830	1160	1280
26	100	13	5.0	.00	.00	.00	200	3700	5320	1640	1130	1290
27	90	12	5.0	.00	.00	.00	300	3940	4070	1700	1080	1360
28	80	12	5.0	.00	.00	.00	400	4100	4300	2110	1020	1520
29	70	12	5.0	.00	---	.00	500	4780	4180	2370	956	1720
30	62	12	5.0	.00	---	.00	700	5320	3280	2410	914	1880
31	55	---	5.0	.00	---	.00	---	5140	---	2230	884	---
TOTAL	22437	592	230.0	30.00	.00	.00	2480.00	215900	225760	116840	36178	31519
MEAN	724	19.7	7.42	.97	.000	.000	82.7	6965	7525	3769	1167	1051
MAX	2960	48	11	5.0	.00	.00	700	20000	21000	8830	1860	1880
MIN	55	12	5.0	.00	.00	.00	.00	1000	3280	1640	884	813
CFSM	.12	.003	.001	.000	.000	.000	.01	1.19	1.28	.64	.20	.18
IN.	.14	.00	.00	.00	.00	.00	.02	1.37	1.43	.74	.23	.20
AC-FT	44500	1170	456	60	.00	.00	4920	428200	447800	231800	71760	62520

CAL YR 1977 TOTAL 975388.00 MEAN 2672 MAX 27300 MIN .00 CFSM .45 IN 6.17 AC-FT 1935000
WTR YR 1978 TOTAL 651966.00 MEAN 1786 MAX 21000 MIN .00 CFSM .30 IN 4.12 AC-FT 1293000

15356000 YUKON RIVER AT EAGLE

LOCATION.--Lat 64°47'22", long 141°11'52", in NW¼ sec.31, T.1 S., R.33 E., Hydrologic Unit 19030002, on left bank at Eagle, 0.1 mi (0.2 km) upstream from Mission Creek, 1.1 mi (1.8 km) downstream from Castalia Creek, and 11 mi (18 km) downstream from the international boundary.

DRAINAGE AREA.--113,500 mi^2 (294,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1911 to December 1913, June 1950 to current year. Monthly discharge only for some periods, published in WSP 1372.

REVISED RECORDS.--WSP 1372: 1911-14. WSP 2136: 1957, 1964 (M).

GAGE.--Nonrecording gage read once or twice daily. Altitude of gage is 850 ft (260 m), from topographic map. See WSP 1936 for history of changes prior to Oct. 1, 1963.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 9 to June 13, which are estimated and poor.

AVERAGE DISCHARGE.--30 years, 81,630 ft^3/s (2,312 m^3/s), 9.77 in/yr (248 mm/yr), 59,140,000 acre-ft/yr (72.9 km^2/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 545,000 ft^3/s (15,400 m^3/s) June 12, 1964, gage height, 33.85 ft (10.317 m); maximum gage height, 35.94 ft (10.955 m) in May 1962, from floodmarks, backwater from ice; minimum daily discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 243,000 ft^3/s (6,880 m^3/s) June 8, gage height, 20.64 ft (6.291 m); minimum daily, about 16,000 ft^3/s (450 m^3/s) Mar. 16 to Apr. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112000	48000	35000	27000	22000	18000	16000	23000	150000	167000	168000	112000
2	110000	48000	35000	27000	22000	18000	16000	25000	160000	170000	160000	109000
3	106000	48000	35000	27000	22000	18000	16000	27000	180000	178000	154000	107000
4	101000	48000	35000	27000	22000	18000	16000	32000	190000	183000	151000	105000
5	98800	48000	35000	27000	22000	18000	16000	40000	200000	175000	150000	103000
6	96400	45000	34000	26000	21000	17000	16000	48000	220000	165000	148000	103000
7	94000	45000	34000	26000	21000	17000	16000	60000	230000	167000	147000	101000
8	91600	45000	34000	26000	21000	17000	16000	75000	240000	170000	150000	101000
9	88000	45000	34000	26000	21000	17000	16000	90000	240000	170000	153000	103000
10	86000	45000	34000	26000	21000	17000	16000	110000	230000	162000	151000	103000
11	82000	43000	32000	26000	21000	17000	16000	120000	230000	154000	151000	101000
12	78000	43000	32000	26000	21000	17000	16000	120000	220000	150000	150000	98900
13	73000	43000	32000	26000	21000	17000	16000	110000	210000	148000	151000	96400
14	70000	43000	32000	26000	21000	17000	16000	110000	200000	153000	156000	94000
15	66000	43000	32000	26000	21000	17000	16000	110000	183000	173000	157000	91600
16	62000	41000	30000	25000	20000	16000	16000	100000	170000	198000	160000	90400
17	58000	41000	30000	25000	20000	16000	16000	100000	173000	201000	167000	88000
18	56000	41000	30000	25000	20000	16000	16000	100000	201000	195000	173000	85700
19	54000	41000	30000	25000	20000	16000	16000	100000	203000	180000	170000	83300
20	52000	41000	30000	25000	20000	16000	16000	110000	193000	180000	164000	82200
21	52000	39000	29000	24000	19000	16000	16000	120000	176000	170000	156000	81000
22	52000	39000	29000	24000	19000	16000	16000	120000	170000	176000	147000	82200
23	52000	39000	29000	24000	19000	16000	16000	120000	168000	168000	140000	81000
24	52000	39000	29000	24000	19000	16000	17000	110000	170000	162000	137000	81000
25	52000	39000	29000	24000	19000	16000	17000	110000	168000	162000	135000	79900
26	50000	37000	28000	23000	18000	16000	18000	110000	159000	165000	131000	78700
27	50000	37000	28000	23000	18000	16000	18000	110000	154000	167000	129000	77600
28	50000	37000	28000	23000	18000	16000	19000	120000	154000	172000	127000	77600
29	50000	37000	28000	23000	---	16000	20000	120000	154000	180000	121000	76400
30	50000	37000	28000	23000	---	16000	21000	130000	159000	181000	118000	75300
31	50000	---	28000	23000	---	16000	---	140000	---	176000	114000	---
TOTAL	2194800	1265000	968000	778000	569000	516000	498000	2920000	5655000	5318000	4586000	2749100
MEAN	70800	42170	31230	25100	20320	16650	16600	94190	188500	171500	147900	91640
MAX	112000	48000	35000	27000	22000	18000	21000	140000	240000	201000	173000	112000
MIN	50000	37000	28000	23000	18000	16000	16000	23000	150000	148000	114000	75300
CFSM	.62	.37	.28	.22	.18	.15	.15	.83	1.66	1.51	1.30	.81
IN.	.72	.41	.32	.25	.19	.17	.16	.96	1.85	1.74	1.50	.90
AC-FT	4353000	2509000	1920000	1543000	1129000	1023000	987800	5792000	11220000	10550000	9096000	5453000

CAL YR 1977 TOTAL 32805800 MEAN 89880 MAX 304000 MIN 24000 CFSM .79 IN 10.75 AC-FT 65070000
WTR YR 1978 TOTAL 28016900 MEAN 76760 MAX 240000 MIN 16000 CFSM .68 IN 9.18 AC-FT 55570000

15356000 YUKON RIVER AT EAGLE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-57, 1962-70, 1974-76, and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR												
20...	1400	16400	240	7.4	.0	1.0	K6	K1	130	31	37	8.9
JUN												
23...	1530	173000	180	7.7	11.5	75	--	--	89	18	25	6.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
MAR												
20...	2.7	1.3	120	0	24	.8	.1	6.7	117	141	.09	.00
JUN												
23...	2.3	.9	86	0	18	.9	.1	5.6	102	102	.07	.03

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR												
20...	.06	.06	.06	.00	.15	.06	.01	5.7	0	2	89	--
JUN												
23...	.37	.40	.00	.46	.47	.17	.01	5.4	--	220	103000	58

K NON-IDEAL COLONY COUNT

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO MARCH 1978

DATE	MAR 20,78
TIME	1400
TOTAL CELLS/ML	0
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0

ORGANISM	CELLS /ML	PER-CENT

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

15389000 PORCUPINE RIVER NEAR FORT YUKON

LOCATION.--Lat 66°59'26", long 143°08'16", Hydrologic Unit 19030002, on right bank 1,000 ft (300 m) upstream from John Herberts Village, and 65 mi (105 km) northeast of Fort Yukon.

DRAINAGE AREA.--29,500 mi^2 (76,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (160 m), from topographic map. Prior to Aug. 17, 1968, 1,300 ft (400 m) upstream at same datum.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 10 to June 13, which are estimated and poor.

AVERAGE DISCHARGE.--14 years, 14,350 ft^3/s (406.4 m^3/s), 6.61 in/yr (168 mm/yr), 10,400,000 acre-ft/yr (12.8 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 299,000 ft^3/s (8,470 m^3/s) about May 24, 1973, gage height, 33.68 ft (10.266 m), from floodmarks, from rating curve extended above 180,000 ft^3/s (5,100 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142,000 ft^3/s (4,020 m^3/s) about June 6, gage height, 25.21 ft (7.684 m), from floodmarks; minimum daily, 480 ft^3/s (13.6 m^3/s) Apr. 1-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15000	2700	1500	960	740	600	480	700	28800	76900	6680	9950
2	15300	2600	1400	960	740	600	480	720	40000	77200	6800	13100
3	15100	2500	1400	940	740	600	480	740	50000	64500	6640	15300
4	16400	2500	1400	940	740	600	480	740	60000	52300	6400	14600
5	16300	2400	1400	920	740	600	480	760	80000	44600	6020	12900
6	16200	2400	1300	900	720	580	480	780	110000	41400	6000	11700
7	16200	2300	1300	900	700	580	480	800	100000	39000	5960	10800
8	15800	2300	1300	880	700	580	480	820	90000	34600	5960	9800
9	14600	2200	1300	880	700	580	480	860	82000	29500	6200	9200
10	11200	2200	1300	880	700	580	480	880	78000	25200	7240	8800
11	9800	2100	1300	880	700	560	480	900	70000	21700	8320	8760
12	8600	2100	1200	860	680	560	480	950	66000	18800	9700	10000
13	4500	2000	1200	860	680	560	500	1000	60000	16800	11300	18900
14	5000	2000	1200	860	680	560	500	1100	55500	15000	12800	21400
15	6400	1900	1200	840	680	560	500	1200	53700	13500	12900	20100
16	6000	1900	1200	840	660	560	520	1300	56200	12400	11900	17900
17	5800	1900	1200	840	660	560	520	1400	66500	11600	10400	16100
18	5400	1800	1100	820	660	560	540	1500	70400	10800	9300	14300
19	5000	1800	1100	820	660	560	540	1700	62800	9950	8480	13000
20	4500	1800	1100	800	660	560	560	2000	51300	9450	7760	12200
21	4300	1700	1100	800	640	540	560	3000	42300	8850	7360	11800
22	4000	1700	1100	800	640	540	580	6000	38100	8400	7000	11900
23	3700	1700	1100	780	640	540	600	12000	42400	8000	6840	12500
24	3500	1600	1100	780	640	540	620	30000	60000	7720	6680	13700
25	3300	1600	1100	780	640	540	620	50000	96500	7400	6480	14200
26	3100	1600	1000	760	620	520	620	45000	102000	7120	6400	13800
27	3000	1600	1000	760	620	520	640	35000	86900	6960	6400	13300
28	2900	1500	1000	760	620	500	640	30000	75000	6840	6520	13200
29	2800	1500	1000	760	---	500	660	26000	71000	6680	6800	13700
30	2800	1500	980	760	---	500	680	23000	68900	6600	7400	15400
31	2700	---	980	760	---	500	---	22000	---	6600	8600	---
TOTAL	249200	59400	36860	26080	19000	17240	16160	302850	2014300	706370	243240	402310
MEAN	8039	1980	1189	841	679	556	539	9769	67140	22790	7846	13410
MAX	16400	2700	1500	960	740	600	680	50000	110000	77200	12900	21400
MIN	2700	1500	980	760	620	500	480	700	28800	6600	5960	8760
CFSM	.27	.07	.04	.03	.02	.02	.02	.33	2.28	.77	.27	.46
IN.	.31	.07	.05	.03	.02	.02	.02	.38	2.54	.89	.31	.51
AC-FT	494300	117800	73110	51730	37690	34200	32050	600700	3995000	1401000	482500	798000

CAL YR 1977 TOTAL 6954790 MEAN 19050 MAX 265000 MIN 800 CFSM .65 IN 8.77 AC-FT 13790000
WTR YR 1978 TOTAL 4093010 MEAN 11210 MAX 110000 MIN 480 CFSM .38 IN 5.16 AC-FT 8118000

15389000 PORCUPINE RIVER NEAR FORT YUKON--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-72, 1975, and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
APR							
05...	1300	482	400	7.2	.0	210	0
JUN							
01...	1400	28500	110	--	6.5	--	--

15439800 BOULDER CREEK NEAR CENTRAL

LOCATION.--Lat 65°34'05", long 144°53'13", in NW¼ sec.32, T.9 N., R.14 E., Hydrologic Unit 19030002, on right bank, 2,000 ft (610 m) upstream from bridge at mile 125.4 (201.8 km) on Steese Highway, 0.7 mi (1.1 km) upstream from mouth, and 2.3 mi (3.7 km) west of Central.

DRAINAGE AREA.--31.3 mi^2 (81.1 km^2).

PERIOD OF RECORD.--Annual maximums, water years 1964-66. May 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,075 ft (328 m), from topographic map. Aug. 3, 1963 to May 22, 1966, crest-stage gage at upstream side of bridge 2,000 ft (610 m) downstream at different datum. May 23, 1966 to Sept. 27, 1969, water-stage recorder, on downstream side of bridge, at datum 7.02 ft (2.140 m) higher than previous datum. Sept. 28, 1969 to July 31, 1971, nonrecording gage on downstream side of bridge, datum of prior recording gage.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 1 to May 30 and June 3 to July 13, which are estimated and poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 11.4 ft^3/s (0.323 m^3/s), 4.95 in/yr (126 mm/yr), 8,260 acre-ft/yr (10.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft^3/s (32.6 m^3/s) Aug. 13, 1967, gage height, 7.50 ft (2.286 m), site and datum then in use, 9.72 ft (2.963 m), from floodmarks at present site and datum, from rating curve extended above 70 ft^3/s (2.0 m^3/s) on the basis of slope-area measurement of peak flow; no flow at times during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 92 ft^3/s (2.61 m^3/s) about May 22, estimated by hydrographic comparison with station nos. 15457800, Hess Creek near Livengood, and 15511000, Little Chena River near Fairbanks; maximum gage height, 9.49 ft (1.743 m) about May 22, from floodmarks, backwater from ice; no flow Oct. 31 to Apr. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.00	.00	.00	.00	.00	.00	30	82	30	2.3	3.2
2	8.0	.00	.00	.00	.00	.00	.00	28	72	29	3.0	3.1
3	6.0	.00	.00	.00	.00	.00	.00	35	50	32	4.4	3.0
4	5.0	.00	.00	.00	.00	.00	.00	45	40	27	4.0	2.8
5	4.0	.00	.00	.00	.00	.00	.00	50	35	22	3.5	3.0
6	4.0	.00	.00	.00	.00	.00	.00	60	30	18	7.0	3.3
7	3.0	.00	.00	.00	.00	.00	.00	70	27	16	22	4.2
8	3.0	.00	.00	.00	.00	.00	.00	80	25	14	22	4.6
9	3.0	.00	.00	.00	.00	.00	.00	74	22	12	18	4.6
10	2.0	.00	.00	.00	.00	.00	.00	70	20	10	12	4.6
11	2.0	.00	.00	.00	.00	.00	.00	74	18	9.0	8.6	4.4
12	2.0	.00	.00	.00	.00	.00	1.0	78	17	8.0	6.8	4.4
13	2.0	.00	.00	.00	.00	.00	1.0	82	40	6.0	5.6	4.4
14	2.0	.00	.00	.00	.00	.00	1.0	86	60	5.4	5.8	4.2
15	2.0	.00	.00	.00	.00	.00	1.0	90	50	4.6	12	4.0
16	2.0	.00	.00	.00	.00	.00	2.0	84	40	4.0	20	3.8
17	2.0	.00	.00	.00	.00	.00	2.0	78	30	3.6	15	3.8
18	2.0	.00	.00	.00	.00	.00	2.0	72	40	3.8	11	3.8
19	1.0	.00	.00	.00	.00	.00	2.0	80	50	3.6	8.3	4.0
20	1.0	.00	.00	.00	.00	.00	3.0	84	40	3.3	7.0	4.2
21	1.0	.00	.00	.00	.00	.00	4.0	88	30	3.0	6.3	4.2
22	1.0	.00	.00	.00	.00	.00	7.0	92	26	3.0	5.6	4.2
23	1.0	.00	.00	.00	.00	.00	10	90	21	3.0	5.4	4.2
24	1.0	.00	.00	.00	.00	.00	13	80	20	2.8	5.2	4.4
25	1.0	.00	.00	.00	.00	.00	20	70	21	2.7	5.0	4.4
26	1.0	.00	.00	.00	.00	.00	30	60	25	7.1	4.6	5.6
27	1.0	.00	.00	.00	.00	.00	40	50	30	10	4.2	9.5
28	1.0	.00	.00	.00	.00	.00	38	40	35	6.1	3.8	12
29	1.0	.00	.00	.00	---	.00	36	45	34	4.0	3.6	20
30	1.0	.00	.00	.00	---	.00	33	60	32	3.2	3.5	18
31	.00	---	.00	.00	---	.00	---	80	---	2.7	3.3	---
TOTAL	76.00	.00	.00	.00	.00	.00	246.00	2105	1060	308.9	248.8	163.9
MEAN	2.45	.000	.000	.000	.000	.000	8.20	67.9	35.3	9.96	8.03	5.46
MAX	10	.00	.00	.00	.00	.00	40	92	82	32	22	20
MIN	.00	.00	.00	.00	.00	.00	.00	28	17	2.7	2.3	2.8
CFSM	.08	.000	.000	.000	.000	.000	.26	2.17	1.13	.32	.26	.17
IN.	.09	.00	.00	.00	.00	.00	.29	2.50	1.26	.37	.30	.19
AC-FT	151	.00	.00	.00	.00	.00	488	4180	2100	613	493	325

CAL YR 1977 TOTAL 4507.00 MEAN 12.3 MAX 192 MIN .00 CFSM .39 IN 5.36 AC-FT 8940
WTR YR 1978 TOTAL 4208.60 MEAN 11.5 MAX 92 MIN .00 CFSM .37 IN 5.00 AC-FT 8350

BEST DOCUMENT AVAILABLE

15453500 YUKON RIVER NEAR STEVENS VILLAGE

LOCATION.--Lat 65°52'36", long 149°43'04", in SE¼SW¼ sec.7, T.12 N., R.10 W., Hydrologic Unit 19030002, on pier no. 5 of the Yukon River bridge, 730 ft (222 m) from north abutment, on TAPS haul road, 0.5 mi (0.8 km) downstream from Woodcamp Creek, 2.5 mi (4.0 km) upstream from Ray River, and 21 mi (34 km) southwest of Stevens Village.

DRAINAGE AREA.--196,300 mi² (508,400 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240.00 ft (73.152 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records estimated and poor for period of no gage-height record prior to May 25, fair thereafter. NOAA satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 670,000 ft³/s (19,000 m³/s) about June 9, 1977, gage height, 54.49 ft (16.61 m), from floodmarks; minimum daily, 18,000 ft³/s (510 m³/s) Apr. 1-25, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed downstream at Rampart (station no. 15468000), 950,000 ft³/s (27,000 m³/s) June 15, 16, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 346,000 ft³/s (9,800 m³/s) June 12, gage height, 41.10 ft (12.53 m); minimum daily, 18,000 ft³/s (510 m³/s) Apr. 1-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170000	90000	55000	36000	26000	22000	18000	20000	181000	309000	176000	140000
2	170000	85000	55000	36000	26000	22000	18000	20000	173000	303000	181000	140000
3	170000	85000	50000	36000	26000	22000	18000	25000	174000	296000	184000	140000
4	160000	85000	50000	36000	26000	22000	18000	25000	187000	292000	182000	130000
5	160000	80000	50000	36000	26000	20000	18000	25000	206000	293000	177000	130000
6	160000	80000	50000	34000	26000	20000	18000	30000	234000	292000	170000	130000
7	160000	80000	50000	34000	26000	20000	18000	30000	270000	287000	166000	130000
8	160000	80000	50000	34000	26000	20000	18000	30000	302000	281000	162000	120000
9	160000	75000	48000	34000	26000	20000	18000	35000	324000	270000	159000	120000
10	150000	75000	48000	34000	26000	20000	18000	35000	337000	257000	159000	120000
11	150000	75000	48000	32000	24000	20000	18000	40000	343000	248000	157000	120000
12	150000	75000	46000	32000	24000	20000	18000	50000	345000	244000	158000	120000
13	140000	70000	46000	32000	24000	20000	18000	60000	341000	237000	159000	120000
14	130000	70000	46000	32000	24000	20000	18000	80000	330000	225000	160000	117000
15	120000	70000	44000	32000	24000	20000	18000	100000	313000	213000	161000	115000
16	120000	70000	44000	30000	24000	20000	18000	140000	306000	203000	161000	114000
17	120000	65000	44000	30000	24000	20000	18000	160000	305000	197000	161000	115000
18	110000	65000	42000	30000	24000	20000	18000	160000	298000	194000	164000	116000
19	110000	65000	42000	30000	24000	20000	18000	150000	284000	200000	168000	114000
20	110000	65000	42000	30000	24000	20000	18000	140000	282000	212000	170000	112000
21	100000	65000	40000	30000	22000	20000	18000	130000	297000	216000	173000	109000
22	100000	60000	40000	30000	22000	20000	18000	130000	304000	215000	177000	108000
23	100000	60000	40000	28000	22000	20000	18000	130000	299000	213000	177000	105000
24	100000	60000	40000	28000	22000	20000	18000	140000	283000	210000	173000	103000
25	95000	60000	40000	28000	22000	20000	18000	150000	265000	205000	167000	102000
26	95000	60000	38000	28000	22000	20000	20000	160000	254000	196000	163000	102000
27	95000	55000	38000	28000	22000	20000	20000	172000	264000	187000	161000	102000
28	95000	55000	38000	28000	22000	20000	20000	198000	296000	179000	160000	102000
29	90000	55000	38000	28000	---	20000	20000	214000	316000	175000	160000	101000
30	90000	55000	38000	28000	---	20000	20000	210000	316000	174000	150000	100000
31	90000	---	38000	28000	---	20000	---	196000	---	175000	150000	---
TOTAL	3930000	2098000	1378000	972000	676000	628000	550000	3185000	8429000	7198000	5146000	3497000
MEAN	126800	69670	44450	31350	24140	20260	18330	102700	281000	232200	166000	116600
MAX	170000	90000	55000	36000	26000	22000	20000	214000	345000	309000	184000	140000
MIN	90000	55000	38000	28000	22000	20000	18000	20000	173000	174000	150000	100000
CFSM	.65	.36	.23	.16	.12	.10	.09	.52	1.43	1.18	.85	.59
IN.	.74	.40	.26	.18	.13	.12	.10	.60	1.60	1.36	.98	.66
AC-FT	7795000	4146000	2733000	1928000	1341000	1246000	1091000	6317000	16720000	14280000	10210000	6936000

CAL YR 1977 TOTAL 46433000 MEAN 127200 MAX 640000 MIN 27000 CFSM .65 IN 8.80 AC-FT 92100000
WTR YR 1978 TOTAL 37679000 MEAN 103200 MAX 345000 MIN 18000 CFSM .53 IN 7.14 AC-FT 74740000

15453500 YUKON RIVER NEAR STEVENS VILLAGE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
MAR							
15...	1500	20000	270	6.9	.0	160	0
SEP							
15...	1300	113000	200	--	11.0	--	--

15457800 HESS CREEK NEAR LIVENGOOD

LOCATION.--Lat 65°39'55", long 149°05'47", in NW¼ sec.30, T.10 N. R.7 W., Hydrologic Unit 19030002, near midspan on downstream side of bridge at mile 22 (35 km) on TAPS haul road, 1.0 mi (1.6 km) downstream from Mastodon Creek, 4.0 mi (6.4 km) upstream from Richardson Creek, and 18.6 mi (29.9 km) northwest of Livengood.

DRAINAGE AREA.--662 mi² (1,715 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1970 to September 1978 (discontinued).

REVISED RECORDS.--WRD Alaska 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft (121.920 m) National Geodetic Vertical Datum of 1929 (Alaska Department of Highways temporary bench mark).

REMARKS.--Records estimated and poor for period of no gage-height record, Oct. 11 to May 23, poor otherwise.

AVERAGE DISCHARGE.--8 years, 226 ft³/s (6.400 m³/s), 4.64 in/yr (118 mm/yr), 163,700 acre-ft/yr (202 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s (283 m³/s) May 13, 1975, gage height, 66.78 ft (20.355 m); no flow during winter period in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,780 ft³/s (164 m³/s) June 28, gage height, 64.98 ft (19.806 m); no flow Jan. 1 to Apr. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	947	50	7.0	.00	.00	.00	.00	360	64	1110	28	61
2	581	48	6.0	.00	.00	.00	.00	420	82	894	26	61
3	541	46	6.0	.00	.00	.00	.00	480	103	790	24	61
4	593	44	6.0	.00	.00	.00	.00	540	159	700	21	61
5	443	42	5.0	.00	.00	.00	.00	580	151	521	20	60
6	319	40	5.0	.00	.00	.00	.00	620	133	388	18	58
7	301	38	5.0	.00	.00	.00	.00	640	133	325	18	56
8	370	36	4.0	.00	.00	.00	.00	600	173	277	18	85
9	355	34	4.0	.00	.00	.00	.00	540	180	238	18	114
10	325	32	4.0	.00	.00	.00	.00	500	143	205	17	100
11	300	30	4.0	.00	.00	.00	.00	460	114	171	17	90
12	270	28	3.0	.00	.00	.00	.00	420	100	149	17	82
13	240	26	3.0	.00	.00	.00	.00	380	97	126	17	73
14	220	24	3.0	.00	.00	.00	.00	340	171	112	16	68
15	200	22	3.0	.00	.00	.00	1.0	320	319	128	18	65
16	180	20	3.0	.00	.00	.00	2.0	300	505	121	20	62
17	160	19	2.0	.00	.00	.00	3.0	290	1100	93	34	59
18	140	18	2.0	.00	.00	.00	5.0	280	1040	75	66	57
19	130	17	2.0	.00	.00	.00	7.0	270	715	61	57	56
20	120	16	2.0	.00	.00	.00	10	400	501	55	46	54
21	110	15	2.0	.00	.00	.00	15	360	391	48	39	52
22	100	14	2.0	.00	.00	.00	20	320	325	45	37	51
23	92	13	2.0	.00	.00	.00	30	280	485	41	113	50
24	84	12	2.0	.00	.00	.00	45	235	1710	38	175	52
25	78	11	1.0	.00	.00	.00	60	205	2370	41	135	55
26	74	10	1.0	.00	.00	.00	80	151	2890	48	107	60
27	70	9.0	1.0	.00	.00	.00	120	110	4510	45	89	286
28	66	8.0	1.0	.00	.00	.00	160	87	5180	41	73	453
29	62	8.0	1.0	.00	---	.00	220	67	2390	38	65	400
30	58	7.0	1.0	.00	---	.00	300	56	1470	36	62	300
31	54	---	1.0	.00	---	.00	---	54	---	31	61	---
TOTAL	7583	737.0	94.0	.00	.00	.00	1078.00	10665	27704	6991	1472	3142
MEAN	245	24.6	3.03	.000	.000	.000	35.9	344	923	226	47.5	105
MAX	947	50	7.0	.00	.00	.00	300	640	5180	1110	175	453
MIN	54	7.0	1.0	.00	.00	.00	.00	54	64	31	16	50
CFSM	.37	.04	.005	.000	.000	.000	.05	.52	1.39	.34	.07	.16
IN.	.43	.04	.01	.00	.00	.00	.06	.60	1.56	.39	.08	.18
AC-FT	15040	1460	186	.00	.00	.00	2140	21150	54950	13870	2920	6230

CAL YR 1977 TOTAL 121627.50 MEAN 333 MAX 4870 MIN .20 CFSM .50 IN 6.83 AC-FT 241200
WTR YR 1978 TOTAL 59466.00 MEAN 163 MAX 5180 MIN .00 CFSM .25 IN 3.34 AC-FT 118000

15457800 HESS CREEK NEAR LIVENGOOD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
MAR				
15...	1130	.00	170	.0
SEP				
28...	1230	447	122	3.5

BEST DOCUMENT AVAILABLE

15476000 TANANA RIVER NEAR TANACROSS

LOCATION.--Lat 63°23'18", long 143°44'47", in NE¼ sec.31, T.19 N., R.9 E., Hydrologic Unit 19030004, on right bank 0.2 mi (0.3 km) north of Cathedral Rapids, 0.3 mi (0.5 km) downstream from Cathedral Rapids Creek No. 1, 9 mi (14 km) upstream from Robertson River, and 13 mi (21 km) west of Tanacross.

DRAINAGE AREA.--8,550 mi² (22,140 km²), approximately.

PERIOD OF RECORD.--June 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.58 ft (454.024 m) National Geodetic Vertical Datum of 1929. Prior to June 13, 1959, on left bank at site 120 ft (37 m) upstream at same datum.

REMARKS.--Records good except those for period of no gage-height record, Oct. 16 to May 15, which are estimated and poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 7,923 ft³/s (224.4 m³/s), 12.58 in/yr (320 mm/yr), 5,740,000 acre-ft/yr (7.08 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,100 ft³/s (1,110 m³/s) June 19, 1962, gage height, 11.65 ft (3.551 m); maximum gage height, 11.70 ft (3.566 m) July 22, 1975; minimum daily discharge, 1,400 ft³/s (40 m³/s) Mar. 1-31, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,000 ft³/s (906 m³/s) Aug. 9, gage height, 10.60 ft (3.231 m); minimum daily, 2,300 ft³/s (65.1 m³/s) Feb. 21 to Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7900	3000	2600	2400	2400	2300	2300	7200	7840	10400	25200	13300
2	7960	3000	2600	2400	2400	2300	2400	6800	7840	10500	27200	13100
3	7900	3000	2600	2400	2400	2300	2400	6800	7780	11100	29100	12900
4	7660	3000	2600	2400	2400	2300	2400	7000	8290	13200	29400	12700
5	7600	3000	2600	2400	2400	2300	2400	7500	8230	11900	29300	12800
6	7630	3000	2600	2400	2400	2300	2400	8000	7960	11400	29600	12900
7	7810	3000	2600	2400	2400	2300	2400	8400	8590	12500	30600	13000
8	7510	3000	2600	2400	2400	2300	2500	8800	9610	14100	31000	13400
9	6900	3000	2600	2400	2400	2300	2500	8700	10300	15000	31400	14000
10	6750	3000	2600	2400	2400	2300	2500	8600	10700	15100	30700	13800
11	6500	2800	2600	2400	2400	2300	2600	8600	10900	15900	27500	13300
12	6250	2800	2600	2400	2400	2300	2600	8550	11200	17600	27600	12600
13	6150	2800	2600	2400	2400	2300	2700	8500	11400	19400	28800	11800
14	6050	2800	2600	2400	2400	2300	2700	8450	12000	20800	28400	11200
15	5900	2800	2600	2400	2400	2300	2800	8400	12600	21300	27600	10800
16	5600	2800	2600	2400	2400	2300	2900	8350	12400	24000	26800	10300
17	5000	2800	2600	2400	2400	2300	3000	8170	12600	22900	26000	9820
18	4600	2800	2600	2400	2400	2300	3100	7900	13300	20700	25000	9310
19	4000	2800	2600	2400	2400	2300	3200	7780	12400	20400	24000	8920
20	3400	2800	2600	2400	2400	2300	3300	7020	11000	20200	23100	8650
21	2800	2800	2600	2400	2300	2300	3400	6380	10300	20400	22100	8290
22	3000	2800	2600	2400	2300	2300	3600	6080	9910	21900	20400	7990
23	3200	2800	2600	2400	2300	2300	3800	5660	9550	22800	19300	7570
24	3200	2800	2600	2400	2300	2300	4000	5780	9190	22400	18000	7330
25	3000	2800	2600	2400	2300	2300	4600	6020	9790	23500	16800	7210
26	3000	2800	2600	2400	2300	2300	5400	6280	10700	24400	15700	7080
27	3000	2800	2600	2400	2300	2300	6300	6780	10900	23300	15000	6820
28	3000	2800	2600	2400	2300	2300	7400	7300	10700	24100	14200	6420
29	3000	2800	2600	2400	---	2300	8200	8050	10500	24300	13600	6120
30	3000	2800	2600	2400	---	2300	7700	7690	10300	23700	13400	5880
31	3000	---	2600	2400	---	2300	---	7390	---	24500	13500	---
TOTAL	162270	86000	80600	74400	66400	71300	107500	232930	308780	583700	740300	309310
MEAN	5235	2867	2600	2400	2371	2300	3583	7514	10290	18830	23880	10310
MAX	7960	3000	2600	2400	2400	2300	8200	8800	13300	24500	31400	14000
MIN	2800	2800	2600	2400	2300	2300	2300	5660	7780	10400	13400	5880
CFSM	.61	.34	.30	.28	.28	.27	.42	.88	1.20	2.20	2.79	1.21
IN.	.71	.37	.35	.32	.29	.31	.47	1.01	1.34	2.54	3.22	1.35
AC-FT	321900	170600	159900	147600	131700	141400	213200	462000	612500	1158000	1468000	613500

CAL YR 1977 TOTAL 3106690 MEAN 8511 MAX 31100 MIN 2500 CFSM 1.00 IN 13.52 AC-FT 6162000
WTR YR 1978 TOTAL 2823490 MEAN 7736 MAX 31400 MIN 2300 CFSM .91 IN 12.28 AC-FT 5600000

15476300 BERRY CREEK NEAR DOT LAKE

LOCATION.--Lat 63°41'23", long 144°21'47", in NW¼ sec.13, T.22 N., R.5 E., Hydrologic Unit 19030004, on left bank 100 ft (30 m) upstream from bridge at mile 1,371.4 (2,206.6 km) on Alaska Highway, 1.9 mi (3.1 km) upstream from mouth, and 6.0 mi (9.7 km) west of Dot Lake.

DRAINAGE AREA.--65.1 mi^2 (168.6 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1964-71; July 1971 to current year.

REVISED RECORDS.--WSP 2136: 1964-65 (M).

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (430 m), from topographic map. Aug. 14, 1963 to July 27, 1971, crest-stage gage at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 14 to May 16, which are estimated and poor.

AVERAGE DISCHARGE.--7 years, 46.0 ft^3/s (1.303 m^3/s) 9.60 in/yr (244 mm/yr), 33,330 acre-ft/yr (41.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft^3/s (79.3 m^3/s) July 19, 1964, gage height, 15.25 ft (4.648 m) site then in use, 15.49 ft (4.721 m) present site, from rating curve extended above 580 ft^3/s (16 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft (5.33 m) in May 1976, from floodmarks, flow over ice; minimum daily discharge, 0.6 ft^3/s (0.02 m^3/s) Jan. 21 to Mar. 15, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft^3/s (10.5 m^3/s) May 29, gage height, 11.73 ft (3.575 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Mar. 1 to Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	18	14	12	11	10	10	30	140	68	58	41
2	72	18	14	12	11	10	10	30	110	65	67	42
3	68	17	14	12	11	10	10	35	81	58	61	41
4	60	17	14	12	11	10	10	35	76	58	65	40
5	60	16	14	12	11	10	10	40	83	68	73	42
6	56	16	13	12	11	10	12	40	76	89	90	41
7	56	16	13	12	11	10	12	45	108	67	79	37
8	56	16	13	12	11	10	12	45	106	63	68	36
9	56	16	13	12	11	10	12	50	94	61	67	36
10	53	15	13	12	11	10	12	50	92	63	63	34
11	52	15	13	12	11	10	12	60	108	65	76	34
12	52	15	13	12	11	10	12	70	112	94	65	34
13	50	15	13	12	11	10	12	80	90	67	60	34
14	47	15	13	12	11	10	12	100	80	133	52	33
15	44	15	13	12	11	10	12	120	76	235	70	33
16	41	15	13	12	11	10	12	100	67	172	67	33
17	37	15	13	12	11	10	14	77	49	118	92	32
18	34	15	13	12	11	10	14	53	42	89	72	31
19	30	15	13	12	11	10	14	43	36	81	58	32
20	28	15	13	12	11	10	14	57	42	76	54	35
21	27	14	13	12	11	10	16	67	41	63	58	33
22	26	14	13	12	11	10	18	52	41	58	68	33
23	25	14	13	12	11	10	22	54	63	70	68	31
24	24	14	13	12	11	10	26	67	67	65	67	31
25	23	14	13	12	11	10	30	128	60	65	60	31
26	22	14	13	12	11	10	30	185	46	73	52	30
27	21	14	13	12	11	10	35	132	49	90	47	30
28	20	14	13	12	11	10	40	110	104	83	45	31
29	20	14	13	12	---	10	40	256	90	70	42	33
30	19	14	13	12	---	10	35	190	73	67	41	32
31	19	---	13	12	---	10	---	118	---	65	41	---
TOTAL	1264	455	408	372	308	310	530	2519	2302	2559	1946	1036
MEAN	40.8	15.2	13.2	12.0	11.0	10.0	17.7	81.3	76.7	82.5	62.8	34.5
MAX	72	18	14	12	11	10	40	256	140	235	92	42
MIN	19	14	13	12	11	10	10	30	36	58	41	30
CFSM	.63	.23	.20	.18	.17	.15	.27	1.25	1.18	1.27	.97	.53
IN.	.72	.26	.23	.21	.18	.18	.30	1.44	1.32	1.46	1.11	.59
AC-FT	2510	902	809	738	611	615	1050	5000	4570	5080	3860	2050

CAL YR 1977 TOTAL 17056.5 MEAN 46.7 MAX 659 MIN 6.0 CFSM .72 IN 9.75 AC-FT 33830
WTR YR 1978 TOTAL 14009.0 MEAN 38.4 MAX 256 MIN 10 CFSM .59 IN 8.01 AC-FT 27790

15477500 CLEARWATER CREEK NEAR DELTA JUNCTION

LOCATION (REVISED).--Lat 64°03'22", long 145°26'16", in SE¼SW¼ sec.8, T.10 S., R.12 E., Hydrologic Unit 19030004, on left bank, 0.1 mi (0.2 km) north of mile 7.7 (12.4 km) Remington Road, 0.4 mi (0.6 km) downstream from Clearwater Creek Campground, 6.0 mi (9.6 km) upstream from mouth, and 9 mi (14 km) east of Delta Junction.

DRAINAGE AREA.--360 mi² (930 km²), approximately. Drainage area contributing to ground-water base flow is probably significantly larger.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 1,050 ft (320 m), from topographic map.

REMARKS.--Records fair except those for Oct. 16 to Apr. 11, which are estimated and poor. Precipitation events and snowmelt runoff have little if any direct effect on streamflow; the small variation in flow is almost entirely in response to seasonal fluctuations in ground-water base flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 783 ft³/s (22.2 m³/s) Aug. 7, 1978, gage height, 12.23 ft (3.728 m); maximum gage height, 12.25 ft (3.734 m) Sept. 26, 1977; minimum daily, 670 ft³/s (19.0 m³/s) Mar. 25 to Apr. 4, Apr. 6 and 7, 1978.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 783 ft³/s (22.2 m³/s) Aug. 7, gage height, 12.23 ft (3.728 m); maximum gage height, 12.24 ft (3.731 m) Oct. 1; minimum daily, 670 ft³/s (19.0 m³/s) Mar. 25 to Apr. 4, Apr. 6 and 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	750	740	730	720	690	670	696	696	696	761	751
2	763	750	740	730	720	690	670	685	685	696	772	740
3	765	750	740	730	720	690	670	696	696	696	761	740
4	765	750	740	730	720	690	670	696	685	696	772	751
5	763	750	740	730	720	690	672	685	685	696	772	740
6	763	750	740	730	720	690	670	685	691	707	772	740
7	763	750	740	730	720	690	670	685	696	707	783	740
8	758	750	740	730	720	690	680	696	685	718	772	740
9	758	750	740	730	720	690	680	696	696	707	783	751
10	758	750	740	730	720	690	680	696	696	718	783	751
11	758	750	740	730	720	690	680	696	685	718	783	751
12	754	750	740	730	720	690	685	696	685	729	772	751
13	754	750	740	730	720	680	685	696	696	729	772	751
14	754	750	740	730	720	680	685	696	707	734	783	751
15	752	750	740	730	722	680	680	696	696	751	783	751
16	750	740	740	730	720	680	680	696	707	751	777	751
17	750	740	740	730	710	680	680	696	707	740	772	729
18	750	740	740	730	710	680	680	685	718	751	772	740
19	750	740	740	730	710	680	680	685	718	740	772	740
20	750	740	740	730	710	680	680	685	707	740	783	751
21	750	740	740	730	710	680	680	674	707	740	783	729
22	750	740	740	730	700	680	680	674	718	740	783	740
23	750	740	740	730	700	680	680	674	718	740	783	718
24	750	740	740	730	700	680	680	685	707	751	772	740
25	750	740	730	730	700	670	680	685	696	751	772	729
26	750	740	730	730	700	670	680	685	707	751	761	729
27	750	740	730	730	696	670	680	674	707	761	761	729
28	750	740	730	720	700	670	680	685	707	761	751	740
29	750	740	730	720	---	670	680	685	696	751	740	740
30	750	740	730	720	---	670	685	685	707	761	740	740
31	750	---	730	720	---	670	---	685	---	761	740	---
TOTAL	23393	22350	22870	22590	19968	21130	20352	21334	21007	22688	23886	22244
MEAN	755	745	738	729	713	682	678	688	700	732	771	741
MAX	765	750	740	730	722	690	685	696	718	761	783	751
MIN	750	740	730	720	696	670	670	674	685	696	740	718
AC-FT	46400	44330	45360	44810	39610	41910	40370	42320	41670	45000	47380	44120

WTR YR 1978 TOTAL 263812 MEAN 723 MAX 783 MIN 670 AC-FT 523300

15477500 CLEARWATER CREEK NEAR DELTA JUNCTION--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV											
04...	1400	--	--	--	--	--	K1	K1	--	--	--
FEB											
27...	1415	--	290	8.0	2.0	1	K1	K2	150	20	45
APR											
05...	1430	672	300	--	2.5	--	K1	K1	--	--	--
MAY											
19...	1445	--	287	--	6.0	--	--	--	--	--	--
JUN											
06...	1145	673	--	7.6	5.0	--	--	K1	--	--	--
JUL											
25...	1400	777	328	7.5	6.0	--	K1	K1	--	--	--
AUG											
16...	2000	742	306	7.5	5.0	1	--	--	150	25	45

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	9.4	3.6	2.0	160	0	31	1.2	.2	15	174	188
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	138	0	--	--	--	--	--	--
JUL											
25...	--	--	--	153	0	--	--	--	--	--	--
AUG											
16...	8.6	3.8	2.1	150	0	33	1.2	.1	14	181	183

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV										
04...	--	--	--	--	--	--	--	--	--	--
FEB										
27...	.26	.01	--	--	--	--	--	--	50	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
JUL										
25...	--	--	--	--	--	--	--	--	--	--
AUG										
16...	.22	.00	0	1	30	<1	0	2	10	5

K NON-IDEAL COLONY COUNT

BEST DOCUMENT AVAILABLE

15477500 CLEARWATER CREEK NEAR DELTA JUNCTION--Continued

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV										
04...	--	--	--	--	--	--	--	--	--	--
FEB										
27...	0	--	--	--	--	--	--	1.0	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	2	3.6
JUL										
25...	--	--	--	--	--	--	--	--	2	4.2
AUG										
16...	2	.0	1	0	0	0	10	.10	--	--

DATE	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	--	--	0	--	.0	--	0	--	.0	--	.0	--
AUG												
16...	.00	.0	--	.00	--	.0	--	.00	--	.00	--	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	.0	--	.0	--	.0	--	--	.0	--	.0	--	.0
AUG												
16...	--	.00	--	.00	--	.00	.00	--	.00	--	.00	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	--	.0	--	.0	--	.0	--	.0	--	.0	--	--
AUG												
16...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	.00

DATE	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV											
04...	--	--	--	--	--	.00	--	.00	--	.00	--
APR											
05...	.0	--	0	--	.0	--	0	--	0	--	.0
AUG											
16...	--	0	--	.00	--	.00	--	.00	--	.00	--

15478040 PHELAN CREEK NEAR PAXSON

LOCATION.--Lat 63°14'27", long 145°28'03", in SW¼ sec.28, T.19 S., R.12 E., Hydrologic Unit 19030004, on left bank approximately 1 mi (2 km) downstream from terminus of Gulkana Glacier, and 14.5 mi (23.3 km) north of Paxson.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

PERIOD OF RECORD.--October 1966 to September 1978 (discontinued). Prior to October 1968, published as Gulkana Creek near Paxson.

GAGE.--Water-stage recorder. Datum of gage is 3,690.53 ft (1,124.916 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records estimated and poor prior to June 21 during period of no gage-height record and poor thereafter. Large fluctuations from ice melt and alternate damming and storage release during melt season. Streamflow augmented by Gulkana Glacier and other glaciers that cover 7.5 mi² (19.3 km²) and 1.1 mi² (2.9 km²), respectively, of the drainage basin. A recording air temperature and precipitation gage at 4,860 ft (1,480 m) altitude, a storage precipitation gage at the stream gaging site, plus 3 snow and ice balance measurement sites, are located in the basin. Combined snow, ice and water balances of the basin are published in other reports of the Geological Survey. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 69.7 ft³/s (1.974 m³/s), 77.58 in/yr (1,971 mm/yr), 50,500 acre-ft/yr (62.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft³/s (65.7 m³/s) Aug. 13, 1967, gage height, 11.51 ft (3.508 m), from rating curve extended above 900 ft³/s (26 m³/s); maximum gage height, 14.7 ft (4.48 m) early June 1967, flow over ice; minimum daily discharge, 1.0 ft³/s (0.03 m³/s) Jan. 16 to May 7, 1967, Feb. 19 to May 4, 1969 and Feb. 1 to Apr. 30, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft³/s (28.3 m³/s) Aug. 1, gage height, 9.09 ft (2.771 m) from rating curve extended above 560 ft³/s (15.9 m³/s); minimum daily, 1.0 ft³/s (0.03 m³/s) Feb. 1 to Apr. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	3.0	2.0	2.0	1.0	1.0	1.0	2.0	40	81	508	166
2	13	3.0	2.0	2.0	1.0	1.0	1.0	3.0	30	81	580	240
3	12	3.0	2.0	2.0	1.0	1.0	1.0	4.0	40	81	495	267
4	11	3.0	2.0	2.0	1.0	1.0	1.0	6.0	50	128	482	172
5	10	3.0	2.0	2.0	1.0	1.0	1.0	8.0	60	192	443	163
6	10	3.0	2.0	2.0	1.0	1.0	1.0	10	70	200	410	166
7	9.0	3.0	2.0	2.0	1.0	1.0	1.0	12	60	186	350	142
8	9.0	3.0	2.0	2.0	1.0	1.0	1.0	15	70	186	410	154
9	9.0	3.0	2.0	2.0	1.0	1.0	1.0	20	100	196	410	157
10	8.0	3.0	2.0	2.0	1.0	1.0	1.0	25	130	235	508	135
11	8.0	3.0	2.0	2.0	1.0	1.0	1.0	30	170	288	469	135
12	8.0	3.0	2.0	2.0	1.0	1.0	1.0	30	163	281	390	115
13	7.0	3.0	2.0	2.0	1.0	1.0	1.0	25	145	230	400	102
14	7.0	3.0	2.0	2.0	1.0	1.0	1.0	20	132	255	323	91
15	7.0	3.0	2.0	2.0	1.0	1.0	1.0	15	122	240	370	87
16	7.0	2.0	2.0	2.0	1.0	1.0	1.0	12	102	235	302	79
17	6.0	2.0	2.0	2.0	1.0	1.0	1.0	8.0	77	225	309	61
18	6.0	2.0	2.0	2.0	1.0	1.0	1.0	7.0	70	245	281	52
19	6.0	2.0	2.0	2.0	1.0	1.0	1.0	8.0	66	288	288	42
20	5.0	2.0	2.0	2.0	1.0	1.0	1.0	10	56	302	350	34
21	5.0	2.0	2.0	2.0	1.0	1.0	1.0	12	49	250	255	29
22	5.0	2.0	2.0	2.0	1.0	1.0	1.0	15	75	288	260	31
23	4.0	2.0	2.0	2.0	1.0	1.0	1.0	18	163	267	220	25
24	4.0	2.0	2.0	2.0	1.0	1.0	1.0	20	110	274	189	23
25	4.0	2.0	2.0	2.0	1.0	1.0	1.0	20	81	255	196	22
26	4.0	2.0	2.0	2.0	1.0	1.0	1.0	15	81	288	178	21
27	4.0	2.0	2.0	2.0	1.0	1.0	1.0	12	81	288	178	21
28	4.0	2.0	2.0	2.0	1.0	1.0	1.0	15	75	370	206	20
29	4.0	2.0	2.0	2.0	---	1.0	1.0	20	73	360	192	19
30	4.0	2.0	2.0	2.0	---	1.0	1.0	30	81	400	172	18
31	4.0	---	2.0	2.0	---	1.0	---	50	---	482	192	---
TOTAL	218.0	75.0	62.0	62.0	28.0	31.0	30.0	497.0	2622	7677	10316	2789
MEAN	7.03	2.50	2.00	2.00	1.00	1.00	1.00	16.0	87.4	248	333	93.0
MAX	14	3.0	2.0	2.0	1.0	1.0	1.0	50	170	482	580	267
MIN	4.0	2.0	2.0	2.0	1.0	1.0	1.0	2.0	30	81	172	18
CFSM	.58	.21	.16	.16	.08	.08	.08	1.31	7.16	20.3	27.3	7.62
IN.	.66	.23	.19	.19	.09	.09	.09	1.52	7.99	23.41	31.45	8.50
AC-FT	432	149	123	123	56	61	60	986	5200	15230	20460	5530

CAL YR 1977 TOTAL 27559.0 MEAN 75.5 MAX 800 MIN 2.0 CFSM 6.19 IN 84.03 AC-FT 54660
WTR YR 1978 TOTAL 24407.0 MEAN 66.9 MAX 580 MIN 1.0 CFSM 5.48 IN 74.42 AC-FT 48410

15481000 TANANA RIVER NEAR HARDING LAKE

LOCATION.--Lat 64°24'04", long 146°56'56", in NE¼ sec.16, T.6 S., R.4 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank 2 mi (3 km) southwest of Harding Lake, 6 mi (10 km) upstream from Salcha River, and 38 mi (61 km) southeast of Fairbanks.

DRAINAGE AREA.--17,240 mi² (44,650 km²).

PERIOD OF RECORD.--May 1968 to current year (gage heights only).

REVISED RECORDS.--WRD Alaska 1972: 1971.

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (213 m), from topographic map.

REMARKS.--Records poor. NOAA satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 16.74 ft (5.102 m) July 15, 1971, but may have been higher during period of no gage-height record, July 16-18, 1971; minimum gage height not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1967 reached a gage height of 18.1 ft (5.52 m) from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 15.15 ft (4.618 m) July 15; minimum gage height not determined.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.39							---	10.10	11.46	14.15	11.82
2	9.22							---	10.10	11.62	14.26	11.78
3	9.04							8.85	10.27	11.70	14.27	11.72
4	8.93							9.53	10.22	11.52	14.18	11.92
5	8.68							9.73	10.13	11.72	14.42	11.95
6	---							9.80	10.35	12.25	14.58	12.08
7	---							9.94	10.50	12.43	14.40	11.99
8	---							10.04	10.70	12.41	14.23	11.63
9	---							10.15	10.79	12.40	14.31	11.49
10	---							9.99	10.80	12.69	14.33	11.50
11	---							10.00	11.09	12.98	14.41	11.51
12	---							9.97	11.31	13.28	14.45	11.44
13	---							9.98	11.50	13.53	14.23	11.25
14	---							10.05	11.61	13.67	13.99	11.13
15	---							10.09	11.68	14.87	13.78	10.86
16	---							10.05	11.90	14.58	13.75	10.53
17	---							10.02	11.97	13.91	13.64	10.40
18	---							9.92	11.58	13.58	13.43	10.26
19	---							9.77	11.28	13.68	13.30	10.10
20	---							9.78	11.30	13.44	13.36	10.01
21	---							9.73	11.13	13.65	13.42	9.86
22	---							9.78	11.10	13.26	13.20	9.63
23	---							9.53	11.19	13.26	13.12	9.48
24	---							9.53	11.50	13.27	12.78	9.38
25	---							9.54	11.54	13.25	12.53	9.27
26	---							9.66	11.50	13.26	12.33	9.18
27	---							9.80	11.70	13.60	12.36	9.18
28	---							9.82	11.74	14.04	12.13	9.15
29	---							9.91	11.58	13.88	12.13	9.13
30	---							10.10	11.51	13.86	12.05	9.08
31	---							10.11	---	13.98	11.93	---
MEAN	---	---	---	---	---	---	---	---	11.12	13.12	13.53	10.62
MAX	---	---	---	---	---	---	---	---	11.97	14.87	14.58	12.08
MIN	---	---	---	---	---	---	---	---	10.10	11.46	11.93	9.08

15484000 SALCHA RIVER NEAR SALCHAKET

LOCATION.--Lat 64°28'22", long 146°55'26", in NE¼ sec.22, T.5 S., R.4 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank 0.2 mi (0.3 km) upstream from bridge on Richardson Highway, 0.5 mi (0.8 km) east of Aurora Lodge, 2 mi (3 km) upstream from mouth, and 6 mi (10 km) southeast of Salchaket.

DRAINAGE AREA.--2,170 mi² (5,620 km²), approximately.

PERIOD OF RECORD.--July 1909 to August 1910, published as "at mouth" (no winter records), October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 631.85 ft (192.588 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 10, 1910, nonrecording gage at site 1.5 mi (2.4 km) downstream at different datum. Oct. 1, 1948 to Apr. 24, 1953, nonrecording gage, and Apr. 25, 1953 to Oct. 16, 1967, water-stage recorder at site 800 ft (240 m) downstream at same datum.

REMARKS.--Records good Oct. 1 to 20, estimated and poor Oct. 21 to May 2, and good thereafter. Several observations of water temperature were made during the year. NOAA satellite telemetry at station.

AVERAGE DISCHARGE.--30 years (water years 1949-78), 1,665 ft³/s (47.15 m³/s), 10.42 in/yr (265 mm/yr), 1,206,000 acre-ft/yr (1.49 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97,000 ft³/s (2,750 m³/s) Aug. 14, 1967, gage height, 21.78 ft (6.639 m), present site, from floodmarks, from rating curve extended above 16,000 ft³/s (450 m³/s) on basis of slope-area measurement and slope-conveyance determination of peak flow; minimum not determined, monthly mean of 60 ft³/s (1.7 m³/s) published for March 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,180 ft³/s (147 m³/s) Aug. 20, gage height, 9.65 ft (2.941 m), no peaks above base of 10,000 ft³/s (280 m³/s); minimum daily, 185 ft³/s (5.2 m³/s) Jan. 6 to Apr. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2700	460	380	190	185	185	185	1700	1320	2020	1150	1940
2	2380	460	370	190	185	185	185	1900	1970	1800	1080	1820
3	2180	450	360	190	185	185	185	2490	2840	2070	1040	1710
4	2060	450	350	190	185	185	185	2920	2600	2380	1080	1620
5	1970	440	330	190	185	185	185	2970	2990	1970	1060	1560
6	1800	440	310	185	185	185	185	2850	2350	1590	1100	1560
7	1700	440	290	185	185	185	185	2860	2030	1360	1410	1550
8	1600	430	280	185	185	185	185	3040	1820	1230	2310	1550
9	1620	430	270	185	185	185	185	3190	1540	1390	2440	1500
10	1540	430	250	185	185	185	190	3230	1310	2070	2130	1450
11	1480	420	240	185	185	185	195	3210	1220	1860	1980	1410
12	1420	420	230	185	185	185	200	3200	1190	1480	1830	1370
13	1350	420	230	185	185	185	210	3120	1220	1350	1650	1350
14	1300	420	220	185	185	185	220	3010	1890	2560	1490	1320
15	1230	420	220	185	185	185	240	2650	3230	4450	1400	1290
16	1130	410	220	185	185	185	260	2370	2340	3620	1410	1250
17	1020	410	210	185	185	185	280	2090	1760	2630	1740	1220
18	1050	410	210	185	185	185	300	2040	1560	2090	1820	1190
19	1010	410	210	185	185	185	340	1960	1910	1740	1630	1180
20	888	410	210	185	185	185	390	1730	1490	1500	1510	1180
21	750	410	200	185	185	185	450	1690	1340	1370	1480	1190
22	640	410	200	185	185	185	520	1860	1310	1330	2180	1190
23	580	410	200	185	185	185	600	1630	1230	1280	4920	1170
24	560	410	200	185	185	185	700	1520	1220	1260	4770	1130
25	540	410	200	185	185	185	800	1610	1520	1270	4220	1120
26	520	410	200	185	185	185	900	1580	1410	1290	3570	1150
27	500	410	200	185	185	185	1000	1290	1300	1480	3080	1230
28	500	400	200	185	185	185	1150	1090	1440	1600	2710	1300
29	480	400	190	185	---	185	1300	1040	2870	1620	2440	1470
30	480	390	190	185	---	185	1500	1020	2650	1420	2230	1720
31	470	---	190	185	---	185	---	1060	---	1260	2070	---
TOTAL	37520	12640	7560	5760	5180	5735	13410	67920	54870	56340	64930	41690
MEAN	1211	421	244	186	185	185	447	2191	1829	1817	2095	1390
MAX	2700	460	380	190	185	185	1500	3230	3230	4450	4920	1940
MIN	470	390	190	185	185	185	185	1020	1190	1230	1040	1120
CFSM	.56	.19	.11	.09	.09	.09	.21	1.01	.84	.84	.97	.64
IN.	.64	.22	.13	.10	.09	.10	.23	1.16	.94	.97	1.11	.71
AC-FT	74440	25070	15000	11420	10270	11380	26600	134700	108800	111800	128800	82690

CAL YR 1977 TOTAL 497018 MEAN 1362 MAX 8780 MIN 120 CFSM .63 IN 8.52 AC-FT 985800
WTR YR 1978 TOTAL 373563 MEAN 1023 MAX 4920 MIN 185 CFSM .47 IN 6.40 AC-FT 741000

BEST DOCUMENT AVAILABLE

15484000 SALCHA RIVER NEAR SALCHAKET--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.32							---	7.34	7.87	7.20	7.82
2	8.12							---	7.83	7.72	7.14	7.73
3	7.98							9.04	8.41	7.91	7.10	7.65
4	7.90							8.45	8.26	8.12	7.14	7.59
5	7.84							8.48	8.49	7.84	7.12	7.54
6	7.78							8.41	8.10	7.56	7.15	7.54
7	7.65							8.42	7.89	7.38	7.42	7.53
8	7.57							8.53	7.74	7.27	8.07	7.53
9	7.59							8.62	7.52	7.41	8.16	7.49
10	7.52							8.64	7.33	7.91	7.95	7.45
11	7.47							8.63	7.27	7.76	7.85	7.42
12	7.43							8.62	7.24	7.48	7.74	7.39
13	7.37							8.58	7.26	7.37	7.61	7.37
14	7.33							8.51	7.75	8.20	7.49	7.35
15	7.27							8.29	8.64	9.29	7.41	7.32
16	7.18							8.11	8.09	8.85	7.42	7.29
17	7.08							7.92	7.69	8.28	7.67	7.26
18	7.11							7.89	7.53	7.93	7.73	7.24
19	7.07							7.84	7.79	7.67	7.60	7.23
20	6.96							7.67	7.48	7.49	7.50	7.23
21	7.16							7.64	7.36	7.39	7.48	7.23
22	7.89							7.76	7.34	7.35	7.96	7.23
23	7.49							7.60	7.27	7.32	9.52	7.22
24	7.77							7.51	7.26	7.30	9.45	7.19
25	7.58							7.58	7.51	7.31	9.18	7.18
26	7.48							7.56	7.31	7.32	8.83	7.20
27	7.63							7.32	7.33	7.48	8.55	7.28
28	---							7.15	7.44	7.57	8.33	7.33
29	---							7.10	8.42	7.59	8.16	7.47
30	---							7.08	8.29	7.43	8.02	7.66
31	---							7.12	---	7.30	7.91	---
MEAN	---							---	7.71	7.70	7.87	7.40
MAX	---							---	8.64	9.29	9.52	7.82
MIN	---							---	7.24	7.27	7.10	7.18

15485500 TANANA RIVER AT FAIRBANKS

LOCATION.--Lat 64°47'54", long 147°46'32", in SE¼ sec.28, T.1 S., R.3 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank at south end of Peger Road in Fairbanks, 2.9 mi (4.7 km) southeast of Fairbanks International Airport, and 4.6 mi (7.4 km) upstream from the Chena River.

DRAINAGE AREA.--Undefined. Part of river flows through Salchaket Slough and is ungaged.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 400.00 ft (121.920 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1973, nonrecording gage and Sept. 14, 1973 to Sept. 30, 1975, water-stage recorder at same site and datum.

REMARKS.--Records poor except those for period of no gage-height record, Oct. 21 to May 10, which are estimated and poor.

AVERAGE DISCHARGE.--5 years, 18,560 ft³/s (525.6 m³/s), 13,450,000 acre-ft/yr (16.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,300 ft³/s (1,930 m³/s) July 22, 1975, gage height, 32.24 ft (9.827 m); minimum daily, 3,100 ft³/s (88 m³/s) Feb. 14 to Mar. 31, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 16, 1967 reached a stage of 34.4 ft (10.49 m), from floodmarks, discharge, about 125,000 ft³/s (3,500 m³/s), contained in reports of the Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60,200 ft³/s (1,700 m³/s) July 16, gage height, 30.84 ft (9.400 m); minimum daily, 5,500 ft³/s (156 m³/s) Mar. 1 to Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22800	7400	6000	5800	5600	5500	5500	19000	19200	27900	54400	34200
2	21400	7400	6000	5800	5600	5500	5600	17500	19700	27400	54500	32600
3	20400	7400	6000	5800	5600	5500	5600	17000	21400	27400	56400	32600
4	19800	7400	6000	5800	5600	5500	5700	17500	21600	27500	55600	32400
5	19400	7400	6000	5800	5600	5500	5800	18000	21500	28500	55900	33300
6	18700	7000	6000	5800	5600	5500	5800	19000	22100	30900	58100	33700
7	18000	7000	6000	5800	5600	5500	5900	20000	22000	33700	58300	33800
8	17500	7000	6000	5800	5600	5500	6000	21000	22100	34500	56400	32000
9	17400	7000	6000	5800	5600	5500	6100	22000	22600	34400	54900	30900
10	16600	7000	6000	5800	5600	5500	6200	21500	22800	35000	57800	30600
11	15900	6600	6000	5800	5600	5500	6300	21600	23600	37300	56900	29800
12	15300	6600	6000	5800	5600	5500	6400	21200	24800	40300	57000	29800
13	14700	6600	6000	5800	5600	5500	6600	21000	26900	42300	56000	29000
14	14600	6600	6000	5800	5600	5500	6800	20800	27700	45000	55400	28200
15	14300	6600	6000	5800	5600	5500	7000	20500	29600	54300	53900	26900
16	13000	6600	6000	5800	5600	5500	7200	20200	29900	59000	52100	24800
17	10000	6600	6000	5800	5600	5500	7400	19900	30000	57900	50800	23400
18	7000	6200	6000	5800	5600	5500	7600	19200	29300	53700	50100	22900
19	6400	6200	6000	5800	5600	5500	8000	18300	27100	50100	48900	21900
20	6400	6200	6000	5800	5600	5500	8400	17500	26200	49000	47800	21000
21	6600	6200	6000	5800	5600	5500	8600	16900	25700	49000	48300	20200
22	6800	6200	6000	5800	5600	5500	9000	16800	24600	47000	47800	19700
23	7200	6200	6000	5800	5600	5500	9400	15900	23900	46000	47300	18600
24	7400	6200	6000	5800	5600	5500	9800	15300	25600	48000	46000	18200
25	7800	6200	6000	5800	5600	5500	10500	15500	27000	47000	42900	17600
26	8000	6000	6000	5800	5600	5500	11000	16000	26800	46000	40800	17100
27	8100	6000	6000	5800	5600	5500	13000	16600	26800	49000	38400	17000
28	8000	6000	6000	5800	5600	5500	15000	16700	27200	52000	37300	17000
29	7800	6000	6000	5800	---	5500	20000	17000	27600	54000	36700	16800
30	7600	6000	6000	5800	---	5500	20500	17600	28300	53000	36100	16300
31	7400	---	6000	5800	---	5500	---	18600	---	52200	35400	---
TOTAL	392000	197800	186000	179800	156800	170500	256700	575600	753600	1339300	1548700	762300
MEAN	12650	6593	6000	5800	5600	5500	8557	18570	25120	43200	49960	25410
MAX	22800	7400	6000	5800	5600	5500	20500	22000	30000	59000	58300	34200
MIN	6400	6000	6000	5800	5600	5500	5500	15300	19200	27400	35400	16300
AC-FT	777500	392300	368900	356600	311000	338200	509200	1142000	1495000	2657000	3072000	1512000

CAL YR 1977 TOTAL 7121000 MEAN 19510 MAX 62100 MIN 4500 AC-FT 14120000
WTR YR 1978 TOTAL 6519100 MEAN 17860 MAX 59000 MIN 5500 AC-FT 12930000

15485500 TANANA RIVER AT FAIRBANKS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT							
03...	1600	20900	--	563	31800	2	4
MAY							
18...	1330	20000	10.0	769	41500	6	8
30...	1300	18400	12.0	476	23600	7	10
JUN							
20...	1345	28400	--	975	74800	16	22
JUL							
10...	1345	34700	17.0	1790	168000	18	25
17...	1630	50100	--	3700	500000	18	22
31...	1400	51500	--	2700	375000	16	22
AUG							
08...	1315	54400	16.0	2870	422000	22	28
14...	1245	57900	14.5	2680	419000	18	24
25...	1400	43000	--	1250	145000	13	16
SEP							
07...	1300	34100	9.5	1020	93900	16	20

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
OCT							
03...	6	10	14	*20	*32	*88	*100
MAY							
18...	12	17	23	*29	*47	*92	*100
30...	15	21	28	*37	*56	*94	*100
JUN							
20...	28	33	40	50	68	97	100
JUL							
10...	37	50	63	76	89	99	100
17...	30	42	56	74	91	99	100
31...	29	39	52	64	87	98	100
AUG							
08...	36	48	62	77	92	99	100
14...	30	41	55	71	88	99	100
25...	23	31	42	56	79	99	100
SEP							
07...	28	39	49	57	73	97	100

* SIEVE ANALYSES

15493000 CHENA RIVER NEAR TWO RIVERS

LOCATION.--Lat 64°53'55", long 146°24'42", in SW¼ sec.19, T.1 N., R.7 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on downstream side of bridge near midspan at mile 37.9 (61.0 km) on the Chena Hot Springs Highway, 20 mi (32 km) east of Two Rivers, and 39 mi (63 km) east of Fairbanks.

DRAINAGE AREA.--941 mi² (2,437 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) National Geodetic Vertical Datum of 1929 (Alaska Department of Highways TBM).

REMARKS.--Records good, except those for Oct. 13 to Apr. 29, which are estimated and poor. NOAA satellite telemetry at station.

AVERAGE DISCHARGE.--11 years, 655 ft³/s (18.54 m³/s), 9.45 in/yr (240 mm/yr), 474,500 acre-ft/yr (585 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s (476 m³/s) May 12, 1975, gage height, 21.05 ft (6.416 m); minimum daily, 20 ft³/s (0.6 m³/s) Feb. 6 to Mar. 12, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 13, 1967 reached a stage of 26.6 ft (8.1 m), from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) Oct. 1, stage falling, peak occurred Sept. 27, 1977; maximum peak discharge, 1,800 ft³/s (51.0 m³/s) June 28, gage height, 15.80 ft (4.816 m); minimum daily discharge, 55 ft³/s (1.56 m³/s) Mar. 11 to Apr. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	320	220	130	110	60	55	819	419	788	378	729
2	1580	310	210	130	110	60	55	904	796	725	380	689
3	1410	310	210	130	100	60	55	1090	794	720	392	654
4	1290	310	200	130	100	60	55	1010	705	648	387	626
5	1230	310	190	130	100	60	55	980	650	570	374	603
6	1150	300	190	120	100	60	55	998	576	515	377	609
7	1010	300	180	120	100	60	60	1130	532	481	455	616
8	964	300	180	120	100	60	60	1250	495	496	629	604
9	920	300	170	120	100	60	60	1170	454	552	602	587
10	867	300	160	120	90	60	60	1100	421	576	553	572
11	825	300	160	120	90	55	70	1030	400	508	516	558
12	799	300	150	120	90	55	70	993	394	467	483	554
13	760	300	150	120	90	55	80	945	398	502	458	543
14	720	300	140	120	90	55	80	878	859	764	446	531
15	680	290	140	120	90	55	90	793	711	796	445	521
16	620	290	140	120	80	55	100	688	558	669	517	509
17	580	290	140	120	80	55	110	695	480	569	508	504
18	520	290	130	120	80	55	130	727	455	521	558	503
19	480	280	130	120	80	55	150	660	430	487	526	499
20	440	280	130	120	80	55	160	618	403	457	504	495
21	410	280	130	120	80	55	200	612	392	442	546	493
22	390	270	130	120	70	55	280	578	386	428	1100	487
23	370	270	130	120	70	55	370	543	385	415	1700	478
24	360	260	130	120	70	55	500	543	474	407	1670	474
25	350	260	130	120	70	55	600	515	576	397	1450	513
26	350	250	130	110	70	55	700	451	553	404	1230	613
27	340	250	130	110	70	55	800	389	568	444	1080	686
28	340	240	130	110	70	55	750	354	1280	457	966	686
29	330	230	130	110	---	55	680	336	1460	463	888	699
30	320	230	130	110	---	55	659	340	1000	428	826	708
31	320	---	130	110	---	55	---	368	---	398	776	---
TOTAL	22555	8520	4750	3710	2430	1755	7149	23507	18004	16494	21880	17343
MEAN	728	284	153	120	86.8	56.6	238	758	600	532	706	578
MAX	1830	320	220	130	110	60	800	1250	1460	796	1700	729
MIN	320	230	130	110	70	55	55	336	385	397	374	474
CFSM	.77	.30	.16	.13	.09	.06	.25	.81	.64	.57	.75	.61
IN.	.89	.34	.19	.15	.10	.07	.28	.93	.71	.65	.86	.69
AC-FT	44740	16900	9420	7360	4820	3480	14180	46630	35710	32720	43400	34400

CAL YR 1977 TOTAL 231095 MEAN 633 MAX 4780 MIN 70 CFSM .67 IN 9.14 AC-FT 458400
WTR YR 1978 TOTAL 148097 MEAN 406 MAX 1830 MIN 55 CFSM .43 IN 5.85 AC-FT 293800

BEST DOCUMENT AVAILABLE

15493000 CHENA RIVER NEAR TWO RIVERS--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.78						---	15.02	14.14	14.79	14.05	14.70
2	15.60						---	15.13	14.78	14.69	14.05	14.64
3	15.47						---	15.17	14.79	14.69	14.08	14.58
4	15.38						---	15.08	14.66	14.57	14.07	14.53
5	15.31						---	15.04	14.57	14.44	14.04	14.50
6	15.19						---	15.06	14.45	14.33	14.04	14.51
7	15.09						---	15.22	14.36	14.26	14.21	14.52
8	15.07						---	15.34	14.29	14.29	14.54	14.50
9	15.02						---	15.26	14.21	14.40	14.49	14.47
10	14.96						---	15.17	14.14	14.45	14.40	14.44
11	14.90						---	15.10	14.10	14.32	14.33	14.41
12	14.87						---	15.05	14.09	14.23	14.27	14.41
13	---						---	15.00	14.09	14.30	14.22	14.38
14	---						---	14.91	14.86	14.75	14.19	14.36
15	---						---	14.79	14.67	14.80	14.19	14.34
16	---						---	14.64	14.41	14.61	14.33	14.32
17	---						---	14.65	14.26	14.44	14.47	14.31
18	---						---	14.70	14.21	14.34	14.41	14.31
19	---						---	14.59	14.16	14.27	14.35	14.30
20	---						---	14.52	14.11	14.21	14.31	14.29
21	---						---	14.51	14.08	14.18	14.39	14.29
22	---						---	14.45	14.07	14.16	15.22	14.27
23	---						---	14.39	14.06	14.13	15.74	14.26
24	---						---	14.38	14.25	14.11	15.72	14.25
25	---						---	14.33	14.45	14.09	15.53	14.33
26	---						14.89	14.20	14.40	14.11	15.32	14.51
27	---						15.22	14.07	14.43	14.19	15.15	14.63
28	---						15.18	13.96	15.32	14.22	15.02	14.63
29	---						15.00	13.94	15.53	14.23	14.93	14.65
30	---						14.77	13.95	15.07	14.16	14.84	14.67
31	---						---	14.02	---	14.10	14.77	---
MEAN	---	---	---	---	---	---	---	14.70	14.43	14.35	14.57	14.44
MAX	---	---	---	---	---	---	---	15.34	15.53	14.80	15.74	14.70
MIN	---	---	---	---	---	---	---	13.94	14.06	14.09	14.04	14.25

15493500 CHENA RIVER NEAR NORTH POLE

LOCATION.--Lat 64°47'47", long 147°11'56", in SW¼ sec.29, T.1 S., R.3 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on left bank 5.5 mi (8.8 km) northeast of North Pole, 6 mi (10 km) upstream from Potlatch Creek, 11 mi (18 km) downstream from Mullen Slough, and 15.7 mi (25.3 km) east of Fairbanks.

DRAINAGE AREA.--1,430 mi^2 (3,704 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 478.08 ft (145.719 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.-Records good except those for periods of no gage-height record, Oct. 6 to Apr. 26 and July 29 to Sept. 7, which are estimated and poor.

AVERAGE DISCHARGE.--6 years, 725 ft^3/s (20.53 m^3/s), 6.88 in/yr (175 mm), 525,300 acre-ft/yr (648 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) May 14, 1975, gage height, 14.18 ft (4.322 m); minimum daily, 50 ft^3/s (1.4 m^3/s) Mar. 1-20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 13, 1967 was the largest flood since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft^3/s (58.1 m^3/s) Oct. 1, stage falling, peak occurred Sept. 27, 1977; maximum peak discharge, 1,860 ft^3/s (52.7 m^3/s) June 29, gage height, 4.14 ft (1.262 m); minimum daily discharge, 80 ft^3/s (2.3 m^3/s) Mar. 6 to Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	550	400	140	120	90	80	1300	608	1350	540	1000
2	1920	550	350	140	120	90	80	1410	638	1120	520	950
3	1820	550	350	140	120	90	80	1490	924	1040	520	900
4	1770	550	300	140	120	90	80	1510	972	972	520	880
5	1710	500	300	140	120	90	80	1500	940	884	540	860
6	1700	500	300	130	120	80	80	1440	900	792	520	840
7	1600	500	250	130	120	80	80	1500	820	729	600	840
8	1500	500	250	130	110	80	90	1570	778	687	700	852
9	1400	500	250	130	110	80	90	1630	736	668	730	828
10	1300	500	250	130	110	80	90	1570	701	674	700	806
11	1300	500	200	130	110	80	90	1500	668	680	660	799
12	1200	500	200	130	110	80	90	1430	638	662	640	778
13	1100	500	200	130	110	80	100	1390	626	638	600	764
14	1000	500	200	130	110	80	100	1310	626	674	580	757
15	960	500	200	130	110	80	110	1240	908	1000	580	736
16	900	450	200	130	100	80	110	1170	884	1070	620	722
17	800	450	150	130	100	80	120	1110	785	948	660	708
18	750	450	150	130	100	80	140	1100	722	813	720	694
19	700	450	150	130	100	80	250	1100	674	740	700	687
20	700	450	150	130	100	80	350	1050	650	694	700	680
21	650	450	150	130	100	80	500	996	626	662	800	680
22	650	450	150	130	100	80	700	964	614	638	1100	680
23	600	450	150	130	100	80	850	916	608	620	1400	668
24	600	450	150	130	90	80	1000	868	608	608	1600	662
25	600	450	140	130	90	80	1150	844	662	590	1600	662
26	600	400	140	120	90	80	1250	806	743	578	1500	701
27	600	400	140	120	90	80	1290	757	750	572	1300	806
28	550	400	140	120	90	80	1350	694	860	572	1200	860
29	550	400	140	120	---	80	1280	650	1630	584	1200	884
30	550	400	140	120	---	80	1240	620	1670	590	1100	916
31	550	---	140	120	---	80	---	608	---	560	1000	---
TOTAL	32580	14200	6380	4020	2970	2530	12900	36043	23969	23409	26150	23600
MEAN	1051	473	206	130	106	81.6	430	1163	799	755	844	787
MAX	1950	550	400	140	120	90	1350	1630	1670	1350	1600	1000
MIN	550	400	140	120	90	80	80	608	608	560	520	662
CFSM	.74	.33	.14	.09	.07	.06	.30	.81	.56	.53	.59	.55
IN.	.85	.37	.17	.10	.08	.07	.34	.94	.62	.61	.68	.61
AC-FT	64620	28170	12650	7970	5890	5020	25590	71490	47540	46430	51870	46810

CAL YR 1977 TOTAL 283414 MEAN 776 MAX 4490 MIN 70 CFSM .54 IN 7.37 AC-FT 562200
WTR YR 1978 TOTAL 208751 MEAN 572 MAX 1950 MIN 80 CFSM .40 IN 5.43 AC-FT 414100

15493500 CHENA RIVER NEAR NORTH POLE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1972 to current year.

INSTRUMENTATION.--Temperature recorder since May 5, 1972.

REMARKS.--No temperature record Nov. 1 to Apr. 25 as gage was shut down for winter.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 16°C July 7, 1972, July 11, 12, 1975; minimum, 0.0°C most days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.0°C July 11; minimum, 0.0°C most days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

OCTOBER

DAY	MAX	MIN	DAY	MAX	MIN	DAY	MAX	MIN
1	3.5	3.0	11	2.0	2.0	21	0.0	0.0
2	3.0	2.5	12	2.0	1.5	22	0.0	0.0
3	2.5	2.5	13	1.5	0.5	23	0.0	0.0
4	2.5	2.5	14	0.5	0.5	24	0.0	0.0
5	2.5	2.5	15	0.5	0.5	25	0.0	0.0
6	2.5	2.5	16	0.5	0.5	26	0.0	0.0
7	2.5	2.0	17	0.5	0.5	27	0.0	0.0
8	2.0	1.5	18	0.5	0.5	28	0.0	0.0
9	2.0	1.5	19	1.5	0.5	29	0.0	0.0
10	2.0	2.0	20	1.0	0.0	30	0.0	0.0
							0.0	0.0
MONTH	3.5	0.0						

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	3.0	2.5	10.0	9.0	9.5	9.0	14.0	13.0	9.0	8.5
2	---	---	4.0	3.0	9.0	8.0	10.0	9.5	13.5	12.5	9.5	9.0
3	---	---	4.5	4.0	9.5	8.5	12.0	10.0	13.5	12.0	9.5	9.0
4	---	---	4.0	3.5	9.5	8.5	12.5	11.5	14.0	12.5	9.5	9.0
5	---	---	4.5	4.0	9.5	9.0	12.5	12.0	13.5	13.0	9.5	9.0
6	---	---	5.0	4.0	9.5	9.0	13.5	12.5	13.0	12.5	9.0	8.5
7	---	---	5.0	5.0	9.0	9.0	13.0	12.0	12.5	12.0	8.5	8.0
8	---	---	5.5	4.5	10.0	8.0	12.5	11.0	13.0	12.0	8.0	7.5
9	---	---	5.5	4.5	11.0	9.0	13.0	12.0	14.0	13.0	8.0	7.5
10	---	---	6.0	5.0	11.5	10.5	14.5	12.5	14.0	13.0	8.0	8.0
11	---	---	6.5	5.5	12.0	11.0	15.0	13.5	13.5	12.5	8.0	7.5
12	---	---	6.5	6.0	12.0	11.5	14.5	13.0	13.0	12.0	8.0	7.5
13	---	---	6.5	6.0	12.0	11.0	13.0	12.0	13.0	12.5	7.5	7.5
14	---	---	7.0	6.5	11.5	10.5	12.5	12.0	12.5	12.0	7.5	7.0
15	---	---	7.0	6.5	12.5	11.0	12.5	11.5	12.0	11.0	7.0	6.5
16	---	---	6.5	6.0	12.0	9.5	13.0	11.5	12.0	11.0	6.5	6.5
17	---	---	7.0	6.0	9.5	9.0	12.5	11.0	12.0	11.0	6.5	6.5
18	---	---	7.0	6.5	9.5	9.0	13.5	12.0	11.5	11.0	6.5	6.5
19	---	---	7.0	6.5	9.5	9.0	13.0	12.5	11.0	10.0	6.5	6.0
20	---	---	7.0	6.5	9.0	8.5	13.5	12.0	11.0	10.5	6.0	5.5
21	---	---	8.0	7.0	9.5	8.0	12.0	11.0	10.5	9.5	5.5	5.0
22	---	---	8.0	7.5	10.0	9.0	12.0	11.0	9.5	8.5	5.0	4.5
23	---	---	8.0	7.5	9.5	9.5	12.5	11.0	8.5	8.0	4.5	4.5
24	---	---	8.0	7.5	9.5	9.0	13.0	11.5	8.0	7.5	4.5	4.0
25	---	---	8.0	7.0	9.5	9.0	13.0	11.5	8.0	8.0	4.5	4.0
26	1.5	1.5	7.5	7.0	10.0	9.5	12.5	11.5	8.0	8.0	5.0	4.5
27	2.0	1.0	7.0	6.0	10.0	9.5	12.5	11.5	8.5	8.0	5.0	5.0
28	2.0	1.0	7.0	5.0	10.0	9.5	14.0	12.0	9.0	8.5	5.0	5.0
29	2.0	1.5	7.0	6.5	10.0	9.0	13.5	12.0	9.0	8.5	5.0	5.0
30	2.5	2.0	8.0	6.5	9.5	9.0	14.0	12.5	9.0	8.5	5.0	4.5
31	---	---	10.0	8.0	---	---	14.5	12.5	9.0	8.5	---	---
MONTH	2.5	1.0	10.0	2.5	12.5	8.0	15.0	9.0	14.0	7.5	9.5	4.0
YEAR	15.0	.0										

15511000 LITTLE CHENA RIVER NEAR FAIRBANKS

LOCATION.--Lat 64°53'10", long 147°14'50", in NE¼ sec.25, T.1 N., R.2 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on downstream side of left bridge abutment at mile 11.9 (19.1 km) on Chena Hot Springs Highway, and 14 mi (23 km) northeast of Fairbanks.

DRAINAGE AREA.--372 mi^2 (963 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 490 ft (150 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 10 to May 3, which are estimated and poor. NOAA satellite telemetry at station.

AVERAGE DISCHARGE.--12 years, 211 ft^3/s (5.976 m^3/s), 7.70 in/yr (196 mm/yr), 152,900 acre-ft/yr (189 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) Aug. 13, 1967, gage height, 31.95 ft (9.738 m), from rating curve extended above 3,000 ft^3/s (85 m^3/s) on basis of contracted-opening determination of peak flow; no flow Mar. 11 to Apr. 15, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 737 ft^3/s (20.9 m^3/s) Oct. 1, stage falling, peak occurred Sept. 27, 1977; maximum peak discharge, 664 ft^3/s (18.8 m^3/s) June 28, gage height, 14.48 ft (4.414 m); minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Feb. 20 to Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	84	28	19	18	17	18	370	116	318	95	190
2	562	80	28	19	18	17	18	350	216	284	92	179
3	496	76	28	19	18	17	19	340	254	262	90	168
4	459	72	28	19	18	17	19	340	216	228	87	159
5	433	69	25	19	18	17	20	350	184	200	85	152
6	385	66	25	19	18	17	20	370	162	176	88	171
7	355	64	25	19	18	17	21	382	146	162	94	217
8	347	61	25	19	18	17	22	376	134	158	93	210
9	328	59	25	19	18	17	24	349	122	148	89	195
10	310	56	23	19	18	17	25	335	110	134	86	186
11	300	54	23	19	18	17	27	312	110	114	83	179
12	280	52	23	19	18	17	29	292	112	108	81	171
13	260	50	23	19	18	17	32	272	110	130	78	166
14	240	48	23	19	18	17	36	268	136	257	79	159
15	220	46	21	19	18	17	42	258	162	434	86	156
16	210	45	21	19	18	17	50	241	144	336	95	148
17	200	44	21	19	18	17	62	231	152	258	107	150
18	180	42	21	19	18	17	76	237	164	210	98	154
19	170	41	21	19	18	17	92	216	146	176	92	151
20	160	39	21	19	17	17	110	207	128	153	89	143
21	156	38	20	19	17	17	130	208	124	140	105	142
22	140	37	20	19	17	17	160	200	118	130	372	142
23	130	36	20	18	17	17	190	192	134	126	514	141
24	120	35	20	18	17	17	230	184	254	119	418	141
25	115	34	20	18	17	17	280	180	372	104	348	174
26	110	33	20	18	17	17	340	162	326	109	302	287
27	105	32	20	18	17	17	360	126	287	169	271	307
28	100	31	20	18	17	17	380	104	497	186	247	278
29	95	30	20	18	---	17	380	100	556	149	227	256
30	92	29	20	18	---	17	380	98	396	123	211	235
31	88	---	20	18	---	17	---	104	---	101	201	---
TOTAL	7809	1483	698	580	495	527	3592	7754	6088	5702	5003	5507
MEAN	252	49.4	22.5	18.7	17.7	17.0	120	250	203	184	161	184
MAX	669	84	28	19	18	17	380	382	556	434	514	307
MIN	88	29	20	18	17	17	18	98	110	101	78	141
CFSM	.68	.13	.06	.05	.05	.05	.32	.67	.55	.50	.43	.50
IN.	.78	.15	.07	.06	.05	.05	.36	.78	.61	.57	.50	.55
AC-FT	15490	2940	1380	1150	982	1050	7120	15380	12080	11310	9920	10920

CAL YR 1977 TOTAL 69018.8 MEAN 189 MAX 1510 MIN 6.8 CFSM .51 IN 6.90 AC-FT 136900
WTR YR 1978 TOTAL 45238.0 MEAN 124 MAX 669 MIN 17 CFSM .33 IN 4.52 AC-FT 89730

BEST DOCUMENT AVAILABLE

15511000 LITTLE CHENA RIVER NEAR FAIRBANKS--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.98							---	11.28	12.41	11.15	11.66
2	14.28							---	11.78	12.20	11.12	11.60
3	13.84							---	12.01	12.06	11.10	11.55
4	13.59							---	11.78	11.85	11.07	11.51
5	13.42							---	11.62	11.70	11.05	11.47
6	13.10							12.74	11.51	11.58	11.08	11.57
7	12.90							12.82	11.43	11.51	11.14	11.81
8	12.84							12.78	11.37	11.49	11.13	11.77
9	12.72							12.61	11.31	11.44	11.09	11.69
10	---							12.52	11.25	11.37	11.06	11.64
11	---							12.37	11.25	11.27	11.03	11.60
12	---							12.25	11.26	11.24	11.01	11.56
13	---							12.13	11.25	11.35	10.98	11.53
14	---							12.10	11.38	12.07	10.99	11.50
15	---							12.04	11.51	13.14	11.06	11.49
16	---							11.94	11.42	12.53	11.15	11.45
17	---							11.89	11.46	12.04	11.24	11.46
18	---							11.92	11.52	11.75	11.18	11.48
19	---							11.81	11.43	11.58	11.12	11.47
20	---							11.76	11.34	11.48	11.09	11.43
21	---							11.74	11.32	11.41	11.20	11.42
22	---							11.70	11.29	11.36	12.75	11.42
23	---							11.66	11.38	11.34	13.62	11.42
24	---							11.62	12.01	11.31	13.04	11.42
25	---							11.60	12.75	11.23	12.60	11.58
26	---							11.51	12.46	11.25	12.31	12.22
27	---							11.33	12.22	11.56	12.12	12.34
28	---							11.22	13.50	11.64	11.97	12.16
29	---							11.20	13.85	11.46	11.86	12.02
30	---							11.19	12.90	11.33	11.78	11.91
31	---							11.22	---	11.20	11.72	---
MEAN	---	---	---	---	---	---	---	---	11.76	11.65	11.51	11.64
MAX	---	---	---	---	---	---	---	---	13.85	13.14	13.62	12.34
MIN	---	---	---	---	---	---	---	---	11.25	11.20	10.98	11.42

15511000 LITTLE CHENA RIVER NEAR FAIRBANKS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-62, 1967-68, 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1972 to current year.

INSTRUMENTATION.--Water temperature recorder since May 9, 1972.

REMARKS.--No temperature record Oct. 13 to Apr. 30, when recorder was shut down for winter. The river is ice covered from October to May.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 16°C June 30, 1973; minimum, 0.0°C most days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.5°C July 11-12; minimum, 0.0°C most days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

OCTOBER

DAY	MAX	MIN	DAY	MAX	MIN	DAY	MAX	MIN
1	2.5	1.5	5	1.5	1.0	9	1.5	1.5
2	1.5	1.0	6	1.5	1.5	10	1.5	1.5
3	1.0	1.0	7	1.5	1.0	11	1.5	1.5
4	1.0	1.0	8	1.5	1.0	12	1.5	1.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			.0	.0	9.0	8.0	9.0	8.5	13.0	12.5	8.0	7.5
2			.0	.0	8.0	7.0	10.0	9.0	13.0	13.0	8.0	8.0
3			.0	.0	8.0	6.5	11.0	10.0	13.0	12.0	8.0	8.0
4			.5	.0	9.0	8.0	11.5	11.0	13.0	12.0	8.0	8.0
5			1.0	.0	9.0	8.5	12.5	11.5	13.0	12.5	8.0	8.0
6			1.5	.5	9.0	8.5	12.5	12.0	13.0	12.0	8.0	8.0
7			2.0	1.0	8.5	8.0	12.5	12.0	12.5	12.0	8.0	7.0
8			2.0	1.5	9.0	7.5	12.0	11.5	12.5	12.0	7.0	6.0
9			2.5	2.0	10.5	9.0	13.0	12.0	13.5	12.0	7.0	6.5
10			3.0	2.5	11.5	10.5	14.0	13.0	13.0	13.0	7.0	7.0
11			3.5	3.0	11.5	10.5	14.5	13.5	13.0	12.0	7.0	7.0
12			4.0	3.5	11.0	10.5	14.5	14.0	13.0	11.0	7.0	6.5
13			4.0	3.5	11.0	10.0	14.0	13.5	12.0	11.5	6.5	6.0
14			5.5	4.0	10.5	9.5	13.5	12.5	12.0	11.5	6.5	5.5
15			5.5	4.5	11.0	10.5	12.5	10.5	11.5	11.0	5.5	5.0
16			5.5	5.0	11.0	9.5	11.5	10.5	11.0	10.5	5.5	5.0
17			5.5	5.0	9.5	8.5	12.0	11.0	11.0	10.5	5.5	5.5
18			5.5	5.0	9.0	8.5	13.0	12.0	11.0	10.0	5.5	5.0
19			5.5	4.5	9.5	8.5	13.0	12.5	10.0	9.0	5.0	4.5
20			5.5	5.0	9.5	9.0	12.5	12.0	10.5	9.5	4.5	4.5
21			6.0	5.0	10.0	8.5	12.0	11.5	10.5	9.5	4.5	4.0
22			6.5	5.5	10.0	9.5	12.0	12.0	9.5	8.5	4.0	3.0
23			6.5	6.0	10.0	9.5	12.5	11.5	8.5	7.5	3.0	2.5
24			7.0	6.5	9.5	9.0	13.0	12.0	8.0	7.5	2.5	2.5
25			7.0	6.0	9.0	8.5	13.0	12.0	8.0	7.5	3.0	2.5
26			6.5	5.5	8.5	8.5	12.5	11.5	7.5	7.0	3.5	3.0
27			5.5	5.0	8.5	8.5	12.0	11.5	8.5	7.5	3.5	3.5
28			5.5	4.5	8.5	8.0	12.5	11.0	8.5	7.5	3.5	3.5
29			6.0	5.5	8.0	7.5	12.5	12.0	8.0	7.0	3.5	3.0
30			7.5	6.0	8.5	8.0	12.5	12.0	8.0	7.5	3.0	2.5
31			9.0	7.5	---	---	13.0	12.5	8.0	7.5	---	---
MONTH			9.0	.0	11.5	6.5	14.5	8.5	13.5	7.0	8.0	2.5
YEAR	14.5	.0										

15514000 CHENA RIVER AT FAIRBANKS

LOCATION.--Lat 64°50'45", long 147°42'04", in NW¼ sec.11, T.1 S., R.1 W., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank 800 ft (240 m) upstream from bridge on Steese Highway (U.S. Highway 97) in Fairbanks, 0.3 mi (0.5 km) upstream from Noyes Slough, 11 mi (18 km) upstream from mouth, and 11 mi (18 km) downstream from Chena Slough.

DRAINAGE AREA.--1,980 mi^2 (5,130 km^2), approximately.

PERIOD OF RECORD.--July 1947 to September 1948 (no winter records), October 1948 to current year.

GAGE.--Water-stage recorder and nonrecording gage used as supplementary gage below stage of 1.30 ft (0.396 m). Datum of gage is 422.92 ft (128.906 m) National Geodetic Vertical Datum of 1929. See WSP 1936 and 2136 for history of changes prior to Apr. 27, 1968.

REMARKS.--Records good except those for Oct. 16 to Apr. 30, which are estimated and poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years (water years 1949-78), 1,425 ft^3/s (40.36 m^3/s), 9.77 in/yr (248 mm/yr), 1,032,000 acre-ft/yr (1.27 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,400 ft^3/s (2,110 m^3/s) Aug. 15, 1967, gage height, 18.82 ft (5.736 m), site then in use; minimum not determined, monthly means of 120 ft^3/s (3.4 m^3/s) published for February 1953 and March 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods in early May 1905 and 1911 reached stages of about 17 ft (5.2 m) and 16 ft (4.9 m) respectively, present site and datum, probably some backwater from ice, from profile of floodmarks in a report by Corps of Engineers. Flood of late August 1930 reached a stage of 16.8 ft (5.12 m), present site and datum, from information in above report. Flood of May 11-14, 1937 reached a stage of 15.7 ft (4.79 m) present datum, from floodmarks at Cushman Street bridge, 16.5 ft (5.03 m), present site and datum, from above report, backwater from ice. Prior to construction of a dike in 1941, it was possible for floodwaters from the Tanana River in Piledriver Slough to be diverted to the Chena River through Chena Slough.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,180 ft^3/s (118 m^3/s) Oct. 1, stage falling, peak occurred Sept. 28, 1977; maximum peak discharge, 2,750 ft^3/s (77.9 m^3/s) Aug. 25, gage height, 3.25 ft (0.991 m); no peak above base of 6,000 ft^3/s (170 m^3/s); minimum daily discharge, 200 ft^3/s (5.7 m^3/s) Mar. 14 to Apr. 11.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUFS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3990	700	520	250	230	210	200	1820	830	1970	816	1590
2	3520	700	500	250	230	210	200	1900	845	1680	788	1520
3	3130	680	480	250	230	210	200	2000	980	1510	760	1430
4	2870	680	460	240	230	210	200	2080	1190	1400	739	1370
5	2680	680	440	240	220	210	200	2030	1160	1320	732	1320
6	2530	680	410	240	220	210	200	2000	1190	1220	746	1300
7	2380	680	390	240	220	210	200	2000	1090	1120	725	1280
8	2230	680	370	240	220	210	200	1980	1030	1040	739	1290
9	2150	680	350	240	220	210	200	2150	972	1040	830	1290
10	2080	680	330	240	220	210	200	2100	928	980	905	1260
11	2000	660	320	240	220	210	200	2010	900	980	905	1230
12	1920	660	310	240	220	210	210	1920	860	958	890	1210
13	1820	660	310	240	220	210	220	1810	845	920	880	1180
14	1710	660	300	240	220	200	230	1740	890	905	875	1160
15	1680	660	290	240	220	200	240	1670	980	1160	852	1140
16	1600	660	280	240	220	200	260	1580	1150	1520	838	1120
17	1500	660	280	240	220	200	300	1490	1170	1480	905	1080
18	1400	660	270	240	220	200	350	1450	1110	1330	996	1080
19	1100	640	270	230	220	200	400	1440	950	1200	1020	1080
20	940	640	260	230	220	200	450	1370	875	1120	996	1070
21	880	640	260	230	220	200	530	1290	845	965	980	1030
22	820	640	260	230	220	200	570	1270	823	880	1010	965
23	800	640	250	230	210	200	750	1210	816	870	1720	980
24	800	640	250	230	210	200	900	1180	816	868	2670	1000
25	780	620	250	230	210	200	1050	1150	920	852	2720	1030
26	760	620	250	230	210	200	1200	1120	1090	838	2480	1100
27	740	680	250	230	210	200	1350	1070	1130	830	2220	1170
28	740	580	250	230	210	200	1500	1060	1220	860	2000	1260
29	720	560	250	230	---	200	1650	1010	1600	890	1860	1290
30	720	540	250	230	---	200	1750	882	2230	882	1750	1300
31	700	---	250	230	---	200	---	820	---	852	1640	---
TOTAL	51690	19480	9910	7340	6140	6330	16110	48602	31435	34440	37987	36125
MEAN	1667	649	320	237	219	204	537	1568	1048	1111	1225	1204
MAX	3990	700	520	250	230	210	1750	2150	2230	1970	2720	1590
MIN	700	540	250	230	210	200	200	820	816	830	725	965
CFSM	.84	.33	.16	.12	.11	.10	.27	.79	.53	.56	.62	.61
IN.	.97	.37	.19	.14	.12	.12	.30	.91	.59	.65	.71	.68
AC-FT	102500	38640	19660	14560	12180	12560	31950	96400	62350	68310	75350	71650

CAL YR 1977 TOTAL 417478 MEAN 1144 MAX 5340 MIN 160 CFSM .58 IN 7.84 AC-FT 828100
WTR YR 1978 TOTAL 305589 MEAN 837 MAX 3990 MIN 200 CFSM .42 IN 5.74 AC-FT 606100

BEST DOCUMENT AVAILABLE

15514000 CHENA RIVER AT FAIRBANKS--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.42							2.25	---	2.41	.98	1.96
2	3.99							2.33	1.02	2.07	.94	1.88
3	3.63							2.44	1.20	1.86	.90	1.76
4	3.37							2.53	1.46	1.73	.87	1.69
5	3.18							2.48	1.42	1.62	.86	1.63
6	3.03							2.45	1.46	1.50	.88	1.60
7	2.87							2.45	1.34	1.37	.85	1.57
8	2.70							2.42	1.26	1.28	.87	1.59
9	2.61							2.61	1.19	---	1.00	1.59
10	2.53							2.55	1.13	1.20	1.10	1.55
11	2.44							2.46	---	1.20	1.10	1.51
12	2.35							2.35	1.04	1.17	---	1.49
13	2.24							2.24	1.02	1.12	---	1.45
14	2.11							2.15	---	1.10	1.06	1.42
15	2.07							2.06	1.20	1.42	1.03	1.40
16	---							1.95	1.41	1.87	1.01	1.37
17	---							1.84	1.44	1.82	1.10	1.33
18	---							1.79	---	1.64	1.22	1.33
19	---							1.78	1.16	1.49	1.25	1.32
20	---							1.69	1.06	1.38	1.22	---
21	---							1.59	1.02	1.18	1.20	---
22	---							1.56	.99	---	1.24	1.18
23	---							1.49	.98	---	2.13	---
24	---							1.45	.98	1.05	3.17	---
25	---							1.41	---	1.03	3.22	1.26
26	---							1.38	1.34	1.01	2.98	---
27	---							1.31	1.39	---	2.69	1.44
28	---							1.30	1.38	1.04	2.45	1.55
29	---							1.24	1.97	---	2.29	1.59
30	---							1.07	2.70	1.07	2.16	1.60
31	---							---	---	1.03	2.03	---

BEST DOCUMENT AVAILABLE

15514500 WOOD RIVER NEAR FAIRBANKS

LOCATION.--Lat 64°26'06", long 148°12'46", in SE¼ sec.31, T.5 S., R.3 W., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank, 16.8 mi (27.0 km) southeast of mouth, and 32 mi (51 km) southwest of Fairbanks.

DRAINAGE AREA.--855 mi^2 (2,214 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1968 to December 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 530 ft (162 m), from topographic map.

REMARKS.--Records poor except those for periods of no gage-height record, Oct. 14 to May 23 and Oct. 4 to Dec. 31, which are estimated and considered poor.

AVERAGE DISCHARGE.--10 years, 473 ft^3/s (13.40 m^3/s), 7.51 in/yr (191 mm/yr), 342,700 acre-ft/yr (423 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,510 ft^3/s (156 m^3/s) Aug. 13, 1976, gage height, 8.98 ft (2.737 m), from rating curve extended above 3,600 ft^3/s (102 m^3/s); minimum daily, 50 ft^3/s (1.4 m^3/s) Dec. 16, 1975 to Apr. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1967 reached a stage of 11.8 ft (3.60 m), from floodmarks, discharge not determined.

EXTREMES FOR CURRENT PERIOD.--Water year 1978: Maximum discharge, 3,360 ft^3/s (95.2 m^3/s) July 15, gage height, 7.03 ft (2.143 m), from floodmarks; minimum daily, 50 ft^3/s (1.4 m^3/s) Feb. 11 to Mar. 15.

September to December 1978: Maximum daily discharge during period, 530 ft^3/s (15.0 m^3/s) Oct. 9; minimum daily, 80 ft^3/s (2.27 m^3/s) Dec. 23-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	300	110	70	60	50	80	340	606	904	1330	900
2	460	280	110	70	60	50	80	360	552	968	1330	840
3	460	280	110	70	60	50	90	380	450	992	1400	820
4	455	260	110	70	60	50	90	410	425	992	1360	820
5	460	260	100	70	60	50	90	430	480	1250	1380	840
6	445	240	100	70	60	50	100	500	510	1500	1660	880
7	430	240	100	70	60	50	100	580	510	1430	2040	740
8	440	220	100	70	60	50	110	660	558	1280	1780	700
9	425	220	100	70	60	50	110	740	564	1120	1560	640
10	425	200	100	70	60	50	120	820	732	1230	1640	640
11	420	200	90	70	50	50	120	860	888	1250	1820	640
12	415	190	90	70	50	50	120	900	1200	1340	1770	666
13	405	190	90	70	50	50	130	920	1480	1400	1510	672
14	400	180	90	70	50	50	130	900	1230	1790	1360	648
15	400	180	90	60	50	50	140	820	1010	2870	1270	612
16	400	170	90	60	50	60	150	700	900	1900	1360	582
17	400	170	90	60	50	60	150	600	800	1390	1400	564
18	400	160	80	60	50	60	160	520	700	1160	1500	540
19	380	160	80	60	50	60	170	440	660	1080	1600	534
20	380	150	80	60	50	60	180	400	640	1150	1700	534
21	380	150	80	60	50	60	190	330	640	992	1800	558
22	360	140	80	60	50	60	200	330	700	864	1500	534
23	360	140	80	60	50	60	210	340	850	912	1400	505
24	360	140	80	60	50	70	230	365	1200	992	1300	490
25	360	130	80	60	50	70	250	390	1000	1000	1100	485
26	340	130	80	60	50	70	260	385	850	1550	1100	485
27	340	130	80	60	50	70	270	360	900	1870	1100	485
28	340	120	80	60	50	70	290	315	900	1640	1100	515
29	320	120	80	60	---	80	300	315	864	1390	1000	552
30	320	120	80	60	---	80	320	594	872	1360	1000	552
31	300	---	80	60	---	80	---	600	---	1320	1000	---
TOTAL	12290	5570	2790	2000	1500	1820	4940	16604	23671	40886	44170	18973
MEAN	396	186	90.0	64.5	53.6	58.7	165	536	789	1319	1425	632
MAX	510	300	110	70	60	80	320	920	1480	2870	2040	900
MIN	300	120	80	60	50	50	80	315	425	864	1000	485
CFSM	.46	.22	.11	.08	.06	.07	.19	.63	.92	1.54	1.67	.74
IN.	.53	.24	.12	.09	.07	.08	.21	.72	1.03	1.78	1.92	.83
AC-FT	24380	11050	5530	3970	2980	3610	9800	32930	46950	81100	87610	37630

CAL YR 1977 TOTAL 172756 MEAN 473 MAX 3000 MIN 80 CFSM .55 IN 7.52 AC-FT 342700
WTR YR 1978 TOTAL 175214 MEAN 480 MAX 2870 MIN 50 CFSM .56 IN 7.62 AC-FT 347500

BEST DOCUMENT AVAILABLE

15514500 WOOD RIVER NEAR FAIRBANKS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	160	90									
2	485	160	90									
3	450	150	90									
4	460	150	90									
5	460	150	90									
6	470	140	90									
7	490	140	90									
8	520	140	90									
9	530	130	90									
10	480	130	90									
11	370	130	90									
12	320	120	90									
13	300	120	90									
14	300	120	90									
15	270	120	90									
16	240	110	85									
17	240	110	85									
18	280	110	85									
19	280	110	85									
20	240	110	85									
21	230	100	85									
22	220	100	85									
23	210	100	80									
24	200	100	80									
25	190	100	80									
26	190	100	80									
27	180	100	80									
28	180	100	80									
29	170	100	80									
30	170	100	80									
31	160	---	80									
TOTAL	9795	3610	2665									
MEAN	316	120	86.0									
MAX	530	160	90									
MIN	160	100	80									
CFSM	.37	.14	.10									
IN.	.43	.16	.12									
AC-FT	19430	7160	5290									

CAL YR 1978 TOTAL 170634 MEAN 467 MAX 2870 MIN 50 CFSM .55 IN 7.42 AC-FT 338500

15514500 WOOD RIVER NEAR FAIRBANKS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-73 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
MAY				
24...	1225	360	280	8.0
SEP				
12...	1100	660	320	0.0

15515500 TANANA RIVER AT NENANA

LOCATION.--Lat 64°33'55", long 149°05'30", in SE¼ sec.14, T.4 S., R.8 W., Hydrologic Unit 19030004, on left bank on east end of Alaska Railroad dock in Nenana and 0.3 mi (0.5 km) upstream from Nenana River.

DRAINAGE AREA.--25,600 mi² (66,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1962 to current year.

REVISED RECORDS.--WSP 2136: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 338.50 ft (103.175 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 10, 1965, on right bank 280 ft (85 m) downstream from railroad bridge 0.5 mi (0.8 km) upstream at present datum. Mar. 10, 1965 to Mar. 23, 1968, nonrecording gage on railroad bridge 0.5 mi (0.8 km) upstream at present datum.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 7 to May 1, which are estimated and poor. NOAA Satellite telemetry at station.

AVERAGE DISCHARGE.-- 16 years, 23,460 ft³/s (664.4 m³/s), 12.44 in/yr (316 mm/yr), 17,000,000 acre-ft/yr (21.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186,000 ft³/s (5,270 m³/s) Aug. 18, 1967, gage height, 18.90 ft (5.761 m), site then in use; minimum daily, 4,000 ft³/s (110 m³/s) Mar. 6-20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1948 reached a stage of 15.9 ft (4.85 m), discharge, about 135,000 ft³/s (3,820 m³/s), contained in reports of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67,600 ft³/s (1,910 m³/s) July 16, gage height, 9.68 ft (2.950 m); minimum daily, 6,500 ft³/s (184 m³/s) Jan. 1 to Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28800	9000	7500	6500	6500	6500	6500	23000	22300	35500	56700	36900
2	26500	9000	7500	6500	6500	6500	6500	25000	22800	34700	58300	36000
3	25000	9000	7500	6500	6500	6500	6500	24700	23100	34500	59700	35000
4	23900	9000	7500	6500	6500	6500	6500	23800	24100	34600	59500	34400
5	23100	9000	7500	6500	6500	6500	7000	24000	24200	36000	59000	34700
6	22300	8500	7500	6500	6500	6500	7000	24900	24400	38500	61000	35300
7	21000	8500	7500	6500	6500	6500	7000	25700	24300	41500	63400	36000
8	20000	8500	7500	6500	6500	6500	7000	26400	24900	42600	62400	34900
9	19000	8500	7500	6500	6500	6500	7000	27600	25800	41700	60600	32900
10	18000	8500	7500	6500	6500	6500	7000	28700	26700	41100	61400	31600
11	18000	8500	7500	6500	6500	6500	7000	28400	27700	43200	61500	31200
12	17000	8500	7500	6500	6500	6500	7500	28500	29700	45700	61500	31400
13	16000	8500	7500	6500	6500	6500	7500	29200	32600	47800	62500	30800
14	15000	8500	7000	6500	6500	6500	7500	29200	34100	49700	61100	29700
15	14000	8500	7000	6500	6500	6500	7500	29200	34600	53600	57900	28200
16	13000	8000	7000	6500	6500	6500	8000	28600	36100	65700	55400	26300
17	12000	8000	7000	6500	6500	6500	8000	27200	36000	65600	53300	25000
18	11000	8000	7000	6500	6500	6500	8500	25500	35300	61700	51800	24100
19	9400	8000	7000	6500	6500	6500	9000	24100	32700	57500	51100	23300
20	8000	8000	7000	6500	6500	6500	9500	23000	30200	55500	48900	22200
21	7400	8000	7000	6500	6500	6500	10000	22200	29500	54800	50000	21600
22	7800	8000	7000	6500	6500	6500	10000	21600	28200	54600	52800	20800
23	8000	8000	7000	6500	6500	6500	11000	21000	28700	51600	52000	19900
24	8400	8000	7000	6500	6500	6500	11000	20200	31400	51000	52000	19000
25	8700	8000	7000	6500	6500	6500	12000	19900	32700	50000	49800	18700
26	8900	8000	7000	6500	6500	6500	13000	19900	33100	51100	46600	18300
27	9000	8000	7000	6500	6500	6500	15000	20000	33800	51800	43500	17900
28	9000	8000	7000	6500	6500	6500	17000	19800	34200	54100	40900	18000
29	9000	7500	7000	6500	---	6500	19000	19200	34200	56600	39200	18000
30	9000	7500	7000	6500	---	6500	21600	19700	35300	55600	39000	17900
31	9000	---	7000	6500	---	6500	---	21000	---	55200	38000	---
TOTAL	455200	249000	223500	201500	182000	201500	287000	751200	892700	1513100	1670800	809900
MEAN	14680	8300	7210	6500	6500	6500	9567	24230	29760	48810	53900	27000
MAX	28800	9000	7500	6500	6500	6500	21000	29200	36100	65700	63400	36900
MIN	7400	7500	7000	6500	6500	6500	6500	19200	22300	34500	38000	17900
CFSM	.57	.32	.28	.25	.25	.25	.37	.95	1.16	1.91	2.11	1.06
IN.	.66	.36	.32	.29	.26	.29	.42	1.09	1.30	2.20	2.43	1.18
AC-FT	902900	493900	443300	399700	361000	399700	569300	1490000	1771000	3001000	3314000	1606000

CAL YR 1977 TOTAL 8755600 MEAN 23990 MAX 69900 MIN 4500 CFSM .94 IN 12.72 AC-FT 17370000
WTR YR 1978 TOTAL 7437400 MEAN 20380 MAX 65700 MIN 6500 CFSM .80 IN 10.81 AC-FT 14750000

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.22							---	3.95	5.87	8.47	6.05
2	4.89							4.40	4.04	5.78	8.65	5.93
3	4.65							4.35	4.08	5.75	8.80	5.81
4	4.47							4.20	4.24	5.75	8.78	5.73
5	4.34							4.24	4.26	5.93	8.73	5.77
6	4.20							4.39	4.29	6.25	8.95	5.84
7	---							4.52	4.28	6.62	9.21	5.93
8	---							4.63	4.38	6.76	9.09	5.79
9	---							4.80	4.53	6.64	8.91	5.53
10	---							4.97	4.67	6.58	9.00	5.36
11	---							4.92	4.81	6.83	9.00	5.30
12	---							4.93	5.10	7.15	9.00	5.34
13	---							5.03	5.50	7.42	9.11	5.26
14	---							5.04	5.69	7.65	8.96	5.10
15	---							5.03	5.75	8.11	8.60	4.88
16	---							4.94	5.95	9.47	8.32	4.62
17	---							4.75	5.94	9.45	8.09	4.40
18	---							4.49	5.85	9.03	7.92	4.26
19	---							4.26	5.51	8.56	7.83	4.11
20	---							4.06	5.18	8.34	7.55	3.94
21	---							3.93	5.07	8.26	7.69	3.83
22	---							3.83	4.88	8.23	8.03	3.71
23	---							3.73	4.96	7.89	7.94	3.54
24	---							3.61	5.34	---	7.94	3.38
25	---							3.56	5.52	---	7.66	3.32
26	---							3.55	5.57	7.82	7.26	3.24
27	---							3.57	5.66	7.91	6.87	3.17
28	---							3.54	5.70	8.18	6.56	3.18
29	---							3.42	5.71	8.46	6.34	3.19
30	---							3.52	5.85	8.35	6.31	3.16
31	---							3.74	---	8.30	6.19	---
MEAN	---							---	5.08	---	8.12	4.62
MAX	---							---	5.95	---	9.21	6.05
MIN	---							---	3.95	---	6.19	3.16

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
FEB									
22...	1330	6620	--	--	.0	--	--	--	1
APR									
13...	1230	7320	300	6.9	.0	135	0	0	--

15518000 NENANA RIVER NEAR HEALY

LOCATION.--Lat 63°50'43", long 148°56'37", in NW¼ sec.28, T.12 S., R.7 W., Hydrologic Unit 19030004, on left bank 0.5 mi (0.8 km) upstream from Healy Creek, 1.1 mi (1.8 km) southeast of Healy, and 1.2 mi (1.9 km) upstream from railroad bridge.

DRAINAGE AREA.--1,910 mi^2 (4,950 km^2), approximately.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,270.22 ft (387.163 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 11, 1964, water-stage recorder 200 ft (61 m) downstream at same datum. Aug. 12, 1964 to Feb. 21, 1967, water-stage recorder, and Feb. 22, 1967 to Apr. 2, 1970, nonrecording gage 300 ft (91 m) upstream at same datum.

REMARKS.--Records fair, except those for period of no gage-height record, Nov. 1 to May 15, which are estimated and poor. Some diurnal fluctuation at times each year caused by snowmelt at the source. Release of water from glacier dammed lake on Yanert Glacier about 50 mi (80 km) upstream has periodically augmented flows at station.

AVERAGE DISCHARGE.--28 years, 3,515 ft^3/s (99.54 m^3/s), 24.99 in/yr 635 mm/yr), 2,547,000 acre-ft/yr (3.14 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,800 ft^3/s (1,330 m^3/s) July 25, 1967, gage height, 13.40 ft (4.084 m), from floodmarks; minimum daily, 190 ft^3/s (5.4 m^3/s) Feb. 1 to Apr. 19, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft^3/s (303 m^3/s) July 6, gage height, 7.20 ft (2.195 m); minimum daily, 500 ft^3/s (14 m^3/s) Mar. 15 to Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4800	2600	1000	700	600	520	500	2000	4320	7730	8060	4740
2	4600	2500	1000	690	600	520	500	2300	4160	7730	8270	4580
3	4500	2400	1000	690	600	520	500	2600	3900	7640	8120	4600
4	4380	2300	990	680	600	520	500	3000	3960	8510	7970	4680
5	4220	2200	990	680	600	520	500	3500	4080	9800	7970	4760
6	4120	2100	980	680	600	520	510	4000	3940	10600	8630	5060
7	4060	2000	960	670	600	520	510	4500	4100	10300	8450	4640
8	3960	1900	940	670	600	520	520	5000	4720	9290	7760	4480
9	3860	1800	920	660	600	520	530	6000	4900	8600	7730	4340
10	3820	1700	900	660	600	520	540	6400	5750	8600	7610	4200
11	3760	1700	880	660	580	520	560	6800	6300	8420	7340	4320
12	3700	1600	880	660	580	520	580	7000	8570	8630	7370	4380
13	3680	1600	860	660	580	520	600	6800	9080	8480	8090	4360
14	3500	1500	860	660	580	520	620	6600	7700	8930	7700	4100
15	3400	1500	840	660	580	520	640	6000	7190	9860	7190	3780
16	3200	2000	840	650	580	500	660	5480	7220	9170	6590	3660
17	3000	1400	820	650	580	500	680	4700	6800	8750	6230	3540
18	2900	1400	820	640	580	500	720	4060	5600	8150	6170	3320
19	2800	1300	800	640	580	500	780	3680	4920	7970	5750	3220
20	3000	1300	800	640	580	500	820	3660	4920	8690	6590	3100
21	3340	1300	780	640	540	500	860	3720	4760	7760	7280	2980
22	3340	1200	760	640	540	500	940	3740	5180	7190	6830	2800
23	3220	1200	760	630	540	500	1000	3520	8450	7490	6260	2680
24	3040	1200	740	630	540	500	1100	3560	8990	8270	5750	2540
25	2950	1200	740	630	540	500	1200	3860	8060	7580	5390	2540
26	3020	1100	740	620	540	500	1200	3800	8330	7880	5090	2600
27	3070	1100	730	620	540	500	1300	3840	9050	8030	4960	2640
28	3080	1100	720	620	540	500	1500	3620	8930	7910	4920	2540
29	2920	1100	710	620	---	500	1600	3520	8090	7640	4920	2600
30	2860	1100	700	620	---	500	1700	3660	7610	7610	4900	2460
31	2740	---	700	620	---	500	---	3940	---	7760	4800	---
TOTAL	108840	48400	26160	20190	16120	15800	24170	134860	190080	260970	210490	110340
MEAN	3511	1613	844	651	576	510	806	4350	6336	8418	6796	3678
MAX	4800	2600	1000	700	600	520	1700	7000	9080	10600	8630	5060
MIN	2740	1100	700	620	540	500	500	2000	3900	7190	4800	2460
CFSM	1.84	.85	.44	.34	.30	.27	.42	2.28	3.32	4.41	3.56	1.93
IN.	2.12	.94	.51	.39	.31	.31	.47	2.63	3.70	5.08	4.10	2.15
AC-FT	215900	96000	51890	40050	31970	31340	47940	267500	377000	517600	417900	218900

CAL YR 1977 TOTAL 1467850 MEAN 4022 MAX 21800 MIN 450 CFSM 2.11 IN 28.59 AC-FT 2911000
WTR YR 1978 TOTAL 1166620 MEAN 3196 MAX 10600 MIN 500 CFSM 1.67 IN 22.72 AC-FT 2314000

15534900 POKER CREEK NEAR CHATANIKA

LOCATION.--Lat 65°09'32", long 147°28'49", in NW¼SE¼ sec.23, T.4 N., R.1 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on right bank 0.7 mi (1.1 km) upstream from Caribou Creek, 2.1 mi (3.4 km) upstream from mouth, 3.3 mi (5.3 km) north of Chatanika, and 22.5 mi (36.2 km) north of Fairbanks.

DRAINAGE AREA.--23.1 mi^2 (59.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1971 to September 1978 (discontinued).

GAGE.-Water-stage recorder. Altitude of gage is 740 ft (230 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years, 10.9 ft^3/s (0.309 m^3/s), 6.41 in/yr (163 mm/yr), 7,900 acre-ft/yr (9.74 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 240 ft^3/s (6.8 m^3/s) May 12, 1975, gage height, 9.3 ft (2.83 m), flow over ice, from runoff comparison with nearby station; maximum gage height, 9.51 ft (2.899 m) May 8, 1972, backwater from ice; minimum daily discharge, 0.4 ft^3/s (0.01 m^3/s) Mar. 15 to Apr. 7, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft^3/s (0.96 m^3/s) Sept. 26, gage height, 6.76 ft (2.060 m); minimum daily, 3.0 ft^3/s (0.08 m^3/s) Mar. 9 to Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	10	6.0	5.0	4.0	3.5	3.0	18	11	13	7.6	7.2
2	26	10	6.0	5.0	4.0	3.5	3.0	19	14	12	7.6	5.0
3	25	10	6.0	5.0	4.0	3.5	3.0	19	12	11	6.8	5.0
4	24	10	6.0	5.0	4.0	3.5	3.0	20	11	10	6.4	5.0
5	23	9.0	6.0	5.0	4.0	3.5	4.0	20	10	8.4	6.8	6.0
6	22	9.0	6.0	5.0	4.0	3.5	4.0	19	10	10	12	13
7	21	9.0	6.0	5.0	4.0	3.5	5.0	19	9.0	11	10	12
8	20	9.0	6.0	5.0	4.0	3.5	5.0	18	9.0	10	8.8	11
9	20	9.0	6.0	5.0	4.0	3.0	6.0	17	8.0	8.8	8.0	9.6
10	19	9.0	6.0	5.0	4.0	3.0	7.0	16	8.0	8.0	6.8	8.8
11	19	8.0	5.5	4.5	4.0	3.0	7.0	15	7.0	7.6	6.0	8.4
12	18	8.0	5.5	4.5	4.0	3.0	7.0	14	7.0	9.2	6.0	8.4
13	18	8.0	5.5	4.5	3.5	3.0	7.0	13	7.0	14	6.0	8.4
14	17	8.0	5.5	4.5	3.5	3.0	8.0	13	7.0	15	6.4	8.4
15	17	8.0	5.5	4.5	3.5	3.0	8.0	14	7.0	12	8.0	8.4
16	16	8.0	5.5	4.5	3.5	3.0	8.0	16	8.0	11	8.4	8.8
17	16	8.0	5.5	4.5	3.5	3.0	8.0	17	9.0	9.2	8.0	9.2
18	15	7.0	5.5	4.5	3.5	3.0	8.0	16	10	8.8	6.8	8.8
19	15	7.0	5.5	4.5	3.5	3.0	8.0	15	12	8.0	6.0	8.4
20	14	7.0	5.5	4.5	3.5	3.0	8.0	15	11	7.2	7.2	8.4
21	14	7.0	5.5	4.5	3.5	3.0	9.0	14	10	8.0	25	8.4
22	13	7.0	5.5	4.5	3.5	3.0	9.0	14	9.0	7.6	26	8.4
23	13	7.0	5.5	4.5	3.5	3.0	10	13	15	7.2	19	8.4
24	12	7.0	5.0	4.5	3.5	3.0	10	13	20	7.2	16	8.8
25	12	7.0	5.0	4.5	3.5	3.0	11	12	18	10	13	20
26	12	6.0	5.0	4.0	3.5	3.0	12	12	20	15	12	29
27	11	6.0	5.0	4.0	3.5	3.0	14	13	23	14	11	22
28	11	6.0	5.0	4.0	3.5	3.0	15	12	20	12	9.6	18
29	11	6.0	5.0	4.0	---	3.0	16	11	17	10	9.2	16
30	10	6.0	5.0	4.0	---	3.0	17	10	15	8.8	8.8	14
31	10	---	5.0	4.0	---	3.0	---	10	---	8.0	8.0	---
TOTAL	522	236.0	171.5	141.5	104.0	97.0	243.0	467	354.0	312.0	307.2	321.2
MEAN	16.8	7.87	5.53	4.56	3.71	3.13	8.10	15.1	11.8	10.1	9.91	10.7
MAX	28	10	6.0	5.0	4.0	3.5	17	20	23	15	26	29
MIN	10	6.0	5.0	4.0	3.5	3.0	3.0	10	7.0	7.2	6.0	5.0
CFSM	.73	.34	.24	.20	.16	.14	.35	.65	.51	.44	.43	.46
IN.	.84	.38	.28	.23	.17	.16	.39	.75	.57	.50	.49	.52
AC-FT	1040	468	340	281	206	192	482	926	702	619	609	637

CAL YR 1977 TOTAL 4142.70 MEAN 11.3 MAX 70 MIN .70 CFSM .49 IN 6.67 AC-FT 8220
WTR YR 1978 TOTAL 3276.40 MEAN 8.98 MAX 29 MIN 3.0 CFSM .39 IN 5.28 AC-FT 6500

NOTE.--No gage-height record Oct. 5 to June 28.

15534900 POKER CREEK NEAR CHATANIKA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-73 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
MAY				
25...	1650	13	110	2.5
SEP				
12...	1230	8.6	120	5.5

15535000 CARIBOU CREEK NEAR CHATANIKA

LOCATION.--Lat 65°09'00", long 147°33'05", in NW¼NE¼ sec.28, T.4 N., R.1 E., Fairbanks North Star Borough, Hydrologic Unit 19030004, on left bank 2.0 mi (3.2 km) upstream from mouth, 3.5 mi (5.6 km) northwest of Chatanika, and 21.6 mi (34.8 km) north of Fairbanks.

DRAINAGE AREA.--9.19 mi^2 (23.8 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 870 ft (270 m), from topographic map.

REMARKS.--Records poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--9 years, 4.73 ft^3/s (0.134 m^3/s), 6.99 in/yr (178 mm/yr), 3,430 acre-ft/yr (4.23 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117 ft^3/s (3.31 m^3/s) May 12, 1975, gage height, 5.47 ft (1.667 m), flow over ice; no flow Dec. 11, 1975 to Apr. 4, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft^3/s (0.79 m^3/s) June 24, gage height, 1.67 ft (0.509 m); minimum daily, 1.5 ft^3/s (0.04 m^3/s) Mar. 26 to May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.4	5.6	3.5	2.5	2.5	1.5	1.5	3.7	5.9	1.8	3.2
2	11	7.4	5.6	3.5	2.5	2.5	1.5	1.5	6.1	6.1	1.8	3.0
3	10	7.2	5.6	3.5	2.5	2.5	1.5	1.5	5.0	5.2	1.8	3.0
4	11	7.2	5.4	3.5	2.5	2.5	1.5	1.5	4.6	4.3	1.6	2.8
5	11	7.2	5.2	3.5	2.5	2.5	1.5	1.5	3.6	3.9	1.8	3.0
6	10	7.2	5.2	3.0	2.5	2.0	1.5	1.7	3.7	3.9	1.8	4.6
7	9.3	7.0	5.2	3.0	2.5	2.0	1.5	1.9	3.7	3.9	1.8	4.6
8	9.0	7.0	5.0	3.0	2.5	2.0	1.5	2.0	3.4	3.6	1.8	4.1
9	8.4	7.0	5.0	3.0	2.5	2.0	1.5	2.0	3.4	3.2	1.8	3.9
10	8.4	6.8	5.0	3.0	2.5	2.0	1.5	1.6	2.8	3.0	1.8	3.9
11	8.4	6.8	5.0	3.0	2.5	2.0	1.5	1.6	2.5	2.8	1.8	3.6
12	8.2	6.8	5.0	3.0	2.5	2.0	1.5	1.7	2.5	3.2	1.8	3.6
13	8.2	6.6	4.5	3.0	2.5	2.0	1.5	2.0	2.7	4.6	1.8	3.4
14	8.2	6.6	4.5	3.0	2.5	2.0	1.5	2.2	2.8	5.6	1.8	3.4
15	8.2	6.6	4.5	3.0	2.5	2.0	1.5	2.5	2.5	5.0	2.2	3.2
16	8.0	6.6	4.5	3.0	2.5	2.0	1.5	2.4	2.8	3.6	2.2	3.2
17	8.0	6.4	4.5	3.0	2.5	2.0	1.5	2.0	4.3	3.2	2.0	3.4
18	8.0	6.4	4.0	3.0	2.5	2.0	1.5	2.0	3.4	2.8	2.0	3.2
19	8.0	6.4	4.0	3.0	2.5	2.0	1.5	2.0	4.8	2.7	1.8	3.2
20	8.0	6.4	4.0	3.0	2.5	2.0	1.5	2.1	5.9	2.7	2.4	3.0
21	7.8	6.2	4.0	3.0	2.5	2.0	1.5	2.2	3.9	2.5	11	3.0
22	7.8	6.2	4.0	3.0	2.5	2.0	1.5	2.6	5.2	2.4	14	3.0
23	7.8	6.2	4.0	2.5	2.5	2.0	1.5	3.0	19	2.4	8.4	3.0
24	7.8	6.0	4.0	2.5	2.5	2.0	1.5	3.2	23	2.3	6.1	3.0
25	7.8	6.0	4.0	2.5	2.5	2.0	1.5	3.2	14	2.0	4.8	7.1
26	7.6	6.0	4.0	2.5	2.5	1.5	1.5	3.0	9.3	2.0	4.3	9.9
27	7.6	5.8	4.0	2.5	2.5	1.5	1.5	3.0	13	2.0	3.7	7.6
28	7.6	5.8	3.5	2.5	2.5	1.5	1.5	3.2	13	1.8	3.6	6.1
29	7.4	5.8	3.5	2.5	---	1.5	1.5	3.0	8.7	1.8	3.6	5.2
30	7.4	5.8	3.5	2.5	---	1.5	1.5	2.8	7.1	1.6	3.4	4.8
31	7.4	---	3.5	2.5	---	1.5	---	2.8	---	1.8	3.4	---
TOTAL	265.3	196.8	139.3	91.0	70.0	61.5	45.0	69.2	190.4	101.8	103.9	122.0
MEAN	8.56	6.56	4.49	2.94	2.50	1.98	1.50	2.23	6.35	3.28	3.35	4.07
MAX	12	7.4	5.6	3.5	2.5	2.5	1.5	3.2	23	6.1	14	9.9
MIN	7.4	5.8	3.5	2.5	2.5	1.5	1.5	1.5	2.5	1.6	1.6	2.8
CFSM	.93	.71	.49	.32	.27	.22	.16	.24	.69	.36	.37	.44
IN.	1.07	.80	.56	.37	.28	.25	.18	.28	.77	.41	.42	.49
AC-FT	526	390	276	180	139	122	89	137	378	202	206	242

CAL YR 1977 TOTAL 1911.30 MEAN 5.24 MAX 60 MIN .20 CFSM .57 IN 7.74 AC-FT 3790
WTR YR 1978 TOTAL 1456.20 MEAN 3.99 MAX 23 MIN 1.5 CFSM .43 IN 5.89 AC-FT 2890

NOTE.--No gage-height record Oct. 7 to May 23.

15564800 YUKON RIVER AT RUBY

LOCATION.--Lat 64°44'28", long 155°29'22", Hydrologic Unit 19030003, on left bank at Ruby, 300 ft (91 m) downstream from Ruby Creek, 1.5 mi (2.4 km) downstream from Melozitna River, and 2.5 mi (4.0 km) upstream from Ruby Slough.

DRAINAGE AREA.--259,000 mi² (671,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1956 to September 1978 (discontinued).

GAGE.--Nonrecording gage read twice daily. Altitude of gage is 150 ft (46 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--22 years, 166,900 ft³/s (4,727 m³/s), 8.75 in/yr (222 mm/yr), 120,900,000 acre-ft/yr (149 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 970,000 ft³/s (27,500 m³/s) June 20, 1964, gage height, 35.4 ft (10.79 m); maximum gage height, 38.5 ft (11.73 m) May 20, 1971, from floodmarks, ice jam; minimum daily discharge, 17,000 ft³/s (480 m³/s) Mar. 1 to Apr. 15, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370,000 ft³/s (10,500 m³/s) July 2, gage height, 21.26 ft (6.480 m); minimum daily, 33,000 ft³/s (935 m³/s) Mar. 6 to Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230000	120000	80000	52000	40000	36000	33000	35000	228000	353000	263000	223000
2	240000	120000	80000	52000	40000	36000	33000	35000	223000	368000	266000	219000
3	230000	110000	80000	52000	40000	36000	33000	40000	214000	365000	266000	214000
4	220000	110000	75000	52000	40000	36000	33000	40000	206000	359000	268000	210000
5	212000	110000	75000	48000	40000	36000	33000	40000	206000	353000	268000	203000
6	208000	110000	75000	48000	36000	33000	33000	45000	214000	350000	270000	201000
7	201000	110000	75000	48000	36000	33000	33000	50000	237000	347000	268000	197000
8	197000	100000	75000	48000	36000	33000	33000	50000	263000	341000	266000	195000
9	190000	100000	75000	48000	36000	33000	33000	60000	296000	338000	261000	192000
10	190000	100000	70000	48000	36000	33000	33000	60000	314000	335000	256000	190000
11	190000	100000	70000	48000	36000	33000	33000	60000	332000	327000	254000	188000
12	180000	100000	70000	48000	36000	33000	33000	70000	341000	322000	251000	184000
13	180000	100000	70000	44000	36000	33000	33000	80000	347000	314000	249000	180000
14	180000	95000	70000	44000	36000	33000	33000	100000	350000	309000	249000	178000
15	170000	95000	65000	44000	36000	33000	33000	120000	347000	306000	251000	176000
16	170000	95000	65000	44000	36000	33000	33000	150000	344000	301000	251000	174000
17	160000	95000	65000	44000	36000	33000	33000	200000	335000	298000	254000	172000
18	160000	95000	65000	44000	36000	33000	33000	232000	332000	296000	251000	170000
19	160000	90000	65000	44000	36000	33000	33000	232000	332000	301000	249000	170000
20	150000	90000	60000	44000	36000	33000	33000	223000	329000	301000	251000	166000
21	150000	90000	60000	40000	36000	33000	33000	201000	324000	301000	251000	164000
22	150000	90000	60000	40000	36000	33000	33000	184000	322000	303000	256000	164000
23	140000	90000	60000	40000	36000	33000	33000	176000	329000	303000	261000	161000
24	140000	85000	60000	40000	36000	33000	33000	172000	341000	301000	263000	157000
25	140000	85000	56000	40000	36000	33000	33000	170000	335000	298000	268000	155000
26	130000	85000	56000	40000	36000	33000	33000	174000	329000	290000	268000	152000
27	130000	85000	56000	40000	36000	33000	33000	178000	322000	285000	263000	148000
28	130000	85000	56000	40000	36000	33000	33000	184000	319000	280000	254000	147000
29	130000	80000	56000	40000	---	33000	35000	203000	327000	273000	246000	147000
30	120000	80000	56000	40000	---	33000	35000	217000	347000	263000	239000	147000
31	120000	---	52000	40000	---	33000	---	228000	---	266000	232000	---
TOTAL	5298000	2900000	2053000	1384000	1028000	1038000	994000	4009000	9085000	9747000	7963000	5344000
MEAN	170900	96670	66230	44650	36710	33480	33130	129300	302800	314400	256900	178100
MAX	240000	120000	80000	52000	40000	36000	35000	232000	350000	368000	270000	223000
MIN	120000	80000	52000	40000	36000	33000	33000	35000	206000	263000	232000	147000
CFSM	.66	.37	.26	.17	.14	.13	.13	.50	1.17	1.21	.99	.69
IN.	.76	.42	.29	.20	.15	.15	.14	.58	1.30	1.40	1.14	.77
AC-FT	10510000	5752000	4072000	2745000	2039000	2059000	1972000	7952000	18020000	19330000	15790000	10600000

CAL YR 1977 TOTAL 60706000 MEAN 166300 MAX 665000 MIN 34000 CFSM .64 IN 8.72 AC-FT 120400000
WTR YR 1978 TOTAL 50843000 MEAN 139300 MAX 368000 MIN 33000 CFSM .54 IN 7.30 AC-FT 100800000

15564800 YUKON RIVER AT RUBY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 and 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	TRITIUM TOTAL (PCI/L)
APR							
06...	1630	33300	300	7.0	150	0	270

15564875 MIDDLE FORK KOYUKUK RIVER NEAR WISEMAN

LOCATION.--Lat 67°26'18", long 150°04'30", in SE¼ sec.7, T.30 N., R.11 W., Hydrologic Unit 19030005, near midspan on downstream side of bridge on TAPS haul road, 1.4 mi (2.3 km) upstream from Minnie Creek, 1.9 mi (3.1 km) downstream from Hammond River, 2.1 mi (3.4 km) north of Wiseman and 2.5 mi (4.0 km) upstream from Wiseman Creek.

DRAINAGE AREA.--1,426 mi² (3,693 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,189.6 ft (362.59 m) National Geodetic Vertical Datum of 1929 (Alyeska Pipeline Service Company, temporary bench mark). Prior to July 23, 1976, at site 0.3 mi (0.5 km) upstream at same datum.

REMARKS.--Water-discharge records estimated and poor for period of no gage-height record, Oct. 6 to May 24, fair otherwise. Winter low flow may be discontinuous as the flow probably varies significantly along the main stem of the river due to the formation of aufeis in the vicinity of springs. Flow may cease at other points.

AVERAGE DISCHARGE.--8 years, 709 ft³/s (20.08 m³/s), 6.75 in/yr (171 mm/yr), 513,700 acre-ft/yr (633 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s (541 m³/s) May 31, 1977, gage height, 10.66 ft (3.249 m), from rating curve extended above 6,000 ft³/s (170 m³/s) on the basis of slope-area measurement at a gage height of 11.1 ft (3.38 m), from floodmarks; no flow Nov. 16, 1974 to Apr. 24, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1968 reached a stage of 13.25 ft (4.039 m) at prior site, from floodmarks, discharge, 16,300 ft³/s (462 m³/s) from slope-area measurement. The maximum evident flood reached a stage of 15.2 ft (4.63 m) at prior site, 11.1 ft (3.38 m), present site, from floodmarks, discharge, about 33,000 ft³/s (930 m³/s) from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft³/s (343 m³/s) June 18, gage height, 9.61 ft (2.929 m) from rating curve extended above 6,000 ft³/s (170 m³/s) on the basis of slope-area measurement at a gage height height of 11.1 ft (3.38 m); minimum daily, 3 ft³/s (0.91 m³/s) Feb. 1 to Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	30	10	5.0	3.0	3.0	3.0	15	5060	4580	805	457
2	500	30	10	5.0	3.0	3.0	3.0	18	5580	3230	778	444
3	450	20	10	5.0	3.0	3.0	3.0	21	5240	3580	742	444
4	455	20	8.0	5.0	3.0	3.0	3.0	24	5440	6880	697	478
5	420	20	8.0	5.0	3.0	3.0	3.0	28	5200	6360	688	513
6	340	20	8.0	5.0	3.0	3.0	4.0	33	4310	4520	679	541
7	280	20	8.0	5.0	3.0	3.0	4.0	39	3550	3380	638	569
8	240	20	8.0	5.0	3.0	3.0	4.0	46	2940	2750	606	576
9	210	20	8.0	5.0	3.0	3.0	4.0	56	2750	2730	576	583
10	180	20	8.0	5.0	3.0	3.0	4.0	68	3000	2230	555	569
11	160	20	7.0	4.0	3.0	3.0	4.0	82	4430	1970	527	548
12	140	15	7.0	4.0	3.0	3.0	4.0	100	4820	1860	506	534
13	120	15	7.0	4.0	3.0	3.0	5.0	130	3770	1720	492	541
14	110	15	7.0	4.0	3.0	3.0	5.0	160	3230	1520	471	555
15	100	15	7.0	4.0	3.0	3.0	5.0	220	3500	1460	457	561
16	90	15	7.0	4.0	3.0	3.0	5.0	290	3480	1400	444	520
17	80	15	6.0	4.0	3.0	3.0	5.0	400	3520	1310	438	492
18	70	15	6.0	4.0	3.0	3.0	6.0	560	8000	1110	426	471
19	60	15	6.0	4.0	3.0	3.0	6.0	820	4460	1030	414	457
20	60	15	6.0	4.0	3.0	3.0	6.0	1200	3740	1460	426	450
21	50	10	6.0	4.0	3.0	3.0	6.0	2100	2550	3140	457	444
22	50	10	6.0	4.0	3.0	3.0	6.0	3900	2490	2050	438	432
23	50	10	6.0	4.0	3.0	3.0	6.0	3000	6840	1640	438	420
24	40	10	6.0	4.0	3.0	3.0	7.0	2300	4730	1400	426	408
25	40	10	5.0	4.0	3.0	3.0	8.0	1720	3850	1370	420	426
26	40	10	5.0	4.0	3.0	3.0	9.0	1420	3910	1330	420	438
27	40	10	5.0	4.0	3.0	3.0	10	1130	3280	1190	432	450
28	30	10	5.0	4.0	3.0	3.0	11	930	3070	1080	426	460
29	30	10	5.0	4.0	---	3.0	12	1180	2940	974	420	470
30	30	10	5.0	4.0	---	3.0	13	2490	3160	900	420	490
31	30	---	5.0	4.0	---	3.0	---	3740	---	841	432	---
TOTAL	5019	475	211.0	134.0	84.0	93.0	174.0	28220	122840	70995	16094	14721
MEAN	162	15.8	6.81	4.32	3.00	3.00	5.80	910	4095	2290	519	491
MAX	524	30	10	5.0	3.0	3.0	13	3900	8000	6880	805	583
MIN	30	10	5.0	4.0	3.0	3.0	3.0	15	2490	841	414	408
CFSM	.11	.01	.005	.003	.002	.002	.004	.64	2.87	1.61	.36	.34
IN.	.13	.01	.01	.00	.00	.00	.00	.74	3.20	1.85	.42	.38
AC-FT	9960	942	419	266	167	184	345	55970	243700	140800	31920	29200

CAL YR 1977 TOTAL 283388.0 MEAN 776 MAX 14800 MIN 5.0 CFSM .54 IN 7.39 AC-FT 562100
WTR YR 1978 TOTAL 259060.0 MEAN 710 MAX 8000 MIN 3.0 CFSM .50 IN 6.76 AC-FT 513800

15564875 MIDDLE FORK KOYUKUK RIVER NEAR WISEMAN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to September 1978 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to August 1971, May to August 1972, July to September 1976, May to October 1977, May to September 1978.

INSTRUMENTATION.--Temperature recorder occasionally operated since June 13, 1971.

REMARKS.--Temperature record Oct. 1-5 and May 26 to Sept. 26. River is ice covered from October to May.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, 20.0°C July 30 to Aug. 1, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 17.0°C July 13, 14; minimum, 0.0°C during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
MAR							
16...	1200	3.1	470	7.3	2.0	235	0

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 16,77
TIME	1645
TOTAL COUNT	294
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.6
...FAMILY	2.1
....GENUS	2.4
....GENUS-INSECTA	2.4

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA	7
....CRICOTOPUS	31
....EUKIEFFERIELLA	2
....HETEROTRISSOCLADIUS	2
....MICROPSECTRA	15
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	1
...EPHEMERELLIDAE	
....EPHEMERELLA	1
...HEPTAGENIIDAE	
....RHITHROGENA	89
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	86
...PERLODIDAE	
....ISOPERLA	56
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....ARCTOPSYCHE	1
...LIMNEPHILIDAE	
....ONOCOSMOECUS	3
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

15564875 MIDDLE FORK KOYUKUK RIVER NEAR WISEMAN--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

OCTOBER

DAY	MAX	MIN	DAY	MAX	MIN
1	2.0	1.0	4	1.5	0.5
2	3.0	1.0	5	1.5	0.0
3	2.0	0.0			

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	7.0	3.0	12.0	7.5	15.5	13.5	12.5	10.0
2			---	---	5.5	2.5	11.5	9.0	15.5	12.0	13.5	9.5
3			---	---	7.0	2.5	10.5	8.0	16.0	12.0	13.5	10.0
4			---	---	7.0	3.5	10.0	7.5	16.5	13.0	12.0	10.0
5			---	---	6.0	3.5	14.0	8.5	15.5	13.5	9.5	8.5
6			---	---	6.5	4.0	13.5	11.5	14.5	12.5	9.5	7.5
7			---	---	7.5	4.5	13.0	11.0	13.5	11.5	9.0	5.5
8			---	---	8.0	4.5	15.0	11.0	14.0	9.0	9.0	7.5
9			---	---	7.5	6.0	15.0	13.0	15.5	11.5	11.0	9.0
10			---	---	10.0	6.5	16.0	12.0	15.0	11.0	10.5	8.0
11			---	---	9.5	7.0	15.5	13.0	15.0	10.5	8.5	6.5
12			---	---	10.5	6.0	16.0	14.0	15.0	10.5	8.0	5.5
13			---	---	10.0	7.5	17.0	13.0	14.5	10.0	10.5	7.5
14			---	---	12.5	8.0	17.0	14.0	15.5	11.5	9.0	6.5
15			---	---	12.5	7.0	16.0	14.0	13.5	10.5	8.5	5.5
16			---	---	10.0	9.0	15.0	12.5	14.0	9.0	7.5	5.0
17			---	---	10.0	6.0	15.5	12.0	14.0	10.0	6.0	3.5
18			---	---	8.0	4.5	16.5	12.5	13.5	11.0	5.5	3.0
19			---	---	9.0	6.0	15.0	13.0	14.0	10.0	5.0	2.5
20			---	---	9.0	6.5	14.5	12.0	12.5	11.0	3.5	2.5
21			---	---	10.0	7.0	12.0	10.0	12.5	9.5	3.5	2.5
22			---	---	10.0	7.0	13.5	10.5	12.5	10.0	4.0	3.0
23			---	---	8.0	5.5	14.5	11.0	12.5	9.5	3.0	2.5
24			---	---	7.0	4.0	14.5	11.0	10.0	6.5	2.5	1.5
25			---	---	8.5	5.5	14.5	11.5	11.5	6.5	2.5	1.0
26			6.0	1.0	10.5	6.5	15.5	11.5	11.0	9.0	5.0	2.5
27			6.0	1.0	11.0	7.5	15.0	12.0	12.0	10.0	---	---
28			7.5	2.0	10.5	8.0	16.0	12.5	12.5	10.0	---	---
29			9.0	4.0	10.0	8.0	15.0	12.5	12.0	8.5	---	---
30			8.0	3.5	10.0	8.5	14.0	13.0	12.5	9.0	---	---
31			7.5	3.0	---	---	16.5	11.5	12.5	10.5	---	---
MONTH					12.5	2.5	17.0	7.5	16.5	6.5	13.5	1.0
YEAR	17.0	.0										

BEST DOCUMENT AVAILABLE

15564877 WISEMAN CREEK AT WISEMAN

LOCATION.--Lat 67°24'38", long 150°06'21", in SE¼ sec.24, T.30 N., R.12 W., Hydrologic Unit 19030005, on left abutment of footbridge at mouth, 0.2 mi (0.3 km) from north end of landing strip at Wiseman.

DRAINAGE AREA.--49.2 mi² (127.4 km²).

PERIOD OF RECORD.--August 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,100 ft (335 m), from topographic map.

REMARKS.--Records estimated and poor for period of no gage-height record Oct. 6 to May 24, fair otherwise.

AVERAGE DISCHARGE.--8 years, 24.4 ft³/s (0.691 m³/s), 6.73 in/yr (171 mm/yr), 17,680 acre-ft/yr (21.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 686 ft³/s (19.4 m³/s) about June 6, 1976, gage height, 5.16 ft (1.573 m), from rating curve extended above 350 ft³/s (9.9 m³/s) but may have been higher during period of no gage-height record in May and June, 1978; maximum gage height, 8.3 ft (2.53 m) May 1978, backwater from ice; no flow each winter.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 197 ft³/s (5.58 m³/s) July 4, gage height 4.47 ft (1.362 m); maximum gage height, 6.04 ft (1.841 m) about May 15, from floodmarks, backwater from ice; no flow Nov. 16 to May 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	1.0	.00	.00	.00	.00	.00	.00	146	60	15	10
2	20	1.0	.00	.00	.00	.00	.00	.00	161	45	15	9.4
3	20	1.0	.00	.00	.00	.00	.00	.00	155	119	14	8.6
4	18	1.0	.00	.00	.00	.00	.00	.00	167	179	13	12
5	15	1.0	.00	.00	.00	.00	.00	.00	150	142	13	15
6	15	1.0	.00	.00	.00	.00	.00	.00	114	103	12	16
7	16	1.0	.00	.00	.00	.00	.00	.00	70	73	12	18
8	13	1.0	.00	.00	.00	.00	.00	1.0	57	68	12	19
9	11	1.0	.00	.00	.00	.00	.00	2.0	68	84	11	18
10	10	1.0	.00	.00	.00	.00	.00	4.0	95	60	10	16
11	9.0	1.0	.00	.00	.00	.00	.00	6.0	128	52	9.4	15
12	8.0	1.0	.00	.00	.00	.00	.00	8.0	103	47	8.6	15
13	7.0	1.0	.00	.00	.00	.00	.00	10	84	41	7.8	15
14	6.0	1.0	.00	.00	.00	.00	.00	20	84	34	7.0	14
15	5.0	1.0	.00	.00	.00	.00	.00	30	119	47	6.6	14
16	5.0	.00	.00	.00	.00	.00	.00	40	124	45	7.8	13
17	4.0	.00	.00	.00	.00	.00	.00	50	114	41	6.6	13
18	4.0	.00	.00	.00	.00	.00	.00	60	106	34	6.1	13
19	3.0	.00	.00	.00	.00	.00	.00	80	73	30	5.6	12
20	3.0	.00	.00	.00	.00	.00	.00	100	57	34	6.6	12
21	3.0	.00	.00	.00	.00	.00	.00	110	47	34	7.8	12
22	3.0	.00	.00	.00	.00	.00	.00	100	68	30	7.8	11
23	2.0	.00	.00	.00	.00	.00	.00	90	137	27	8.6	10
24	2.0	.00	.00	.00	.00	.00	.00	70	150	27	8.6	10
25	2.0	.00	.00	.00	.00	.00	.00	50	137	28	8.6	11
26	2.0	.00	.00	.00	.00	.00	.00	36	106	27	7.8	11
27	2.0	.00	.00	.00	.00	.00	.00	23	80	24	8.6	11
28	2.0	.00	.00	.00	.00	.00	.00	14	55	22	8.6	11
29	1.0	.00	.00	.00	---	.00	.00	22	45	20	8.6	12
30	1.0	.00	.00	.00	---	.00	.00	65	60	18	8.6	12
31	1.0	---	.00	.00	---	.00	---	114	---	16	9.4	---
TOTAL	235.0	15.00	.00	.00	.00	.00	.00	1105.00	3060	1611	292.1	389.0
MEAN	7.58	.50	.000	.000	.000	.000	.000	35.6	102	52.0	9.42	13.0
MAX	22	1.0	.00	.00	.00	.00	.00	114	167	179	15	19
MIN	1.0	.00	.00	.00	.00	.00	.00	.00	45	16	5.6	8.6
CFSM	.15	.01	.000	.000	.000	.000	.000	.72	2.07	1.06	.19	.26
IN.	.18	.01	.00	.00	.00	.00	.00	.84	2.31	1.22	.22	.29
AC-FT	466	30	.00	.00	.00	.00	.00	2190	6070	3200	579	772

CAL YR 1977 TOTAL 10798.60 MEAN 29.6 MAX 650 MIN .00 CFSM .60 IN 8.16 AC-FT 21420
WTR YR 1978 TOTAL 6707.10 MEAN 18.4 MAX 179 MIN .00 CFSM .37 IN 5.07 AC-FT 13300

15564900 KOYUKUK RIVER AT HUGHES

LOCATION.--Lat 66°02'51", long 154°15'30", in SE¼SE¼ sec.33, T.8 N., R.22 E., Hydrologic Unit 19030005, on left bank at north end of runway at Hughes and 0.6 mi (1.0 km) upstream from Hughes Creek.

DRAINAGE AREA.--18,700 mi^2 (48,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1960 to current year.

REVISED RECORDS.--WSP 1936: 1960.

GAGE.--Nonrecording gage read twice daily. Altitude of gage is 250 ft (76 m), from topographic map. Prior to Sept. 30, 1960, on right bank at same datum.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 9 to May 11, which are estimated and poor.

AVERAGE DISCHARGE.--18 years, 14,190 ft^3/s (401.9 m^3/s), 10.30 in/yr (262 mm/yr), 10,280,000 acre-ft/yr (12.7 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266,000 ft^3/s (7,530 m^3/s) June 6, 1964, gage height, 31.09 ft (9.476 m); maximum gage height, 34.33 ft (10.464 m) May 26, 1965, from floodmarks, backwater from ice; minimum daily discharge, 200 ft^3/s (5.7 m^3/s) Apr. 1-15, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1937 reached a stage of about 34 ft (10.4 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,900 ft^3/s (1,870 m^3/s) May 16, gage height, 18.53 ft (5.648 m); minimum daily, 460 ft^3/s (13.0 m^3/s) Apr. 1 to 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40500	3300	1800	1200	740	540	460	6000	20300	40200	12400	7980
2	33500	3200	1800	1200	740	540	460	8000	31800	44300	11600	7880
3	27400	3100	1700	1100	740	540	460	10000	44700	51500	10800	7880
4	22300	3000	1700	1100	740	540	460	15000	54400	45900	10800	8220
5	19600	2900	1700	1100	740	540	460	20000	60200	48000	12200	8220
6	17800	2800	1700	1100	740	540	460	27000	61100	54400	11400	8220
7	16300	2700	1700	1100	740	540	460	40000	58400	54800	10800	8400
8	14000	2600	1600	1100	740	540	460	56000	52700	49500	10400	8470
9	12000	2600	1600	1100	740	540	460	50000	45100	45100	10000	10400
10	11000	2500	1600	1000	740	540	460	46000	34900	39100	9650	11000
11	9500	2400	1600	1000	660	520	480	43000	30400	37700	9100	11000
12	9000	2400	1500	1000	660	520	500	41000	31000	34200	8580	10800
13	8500	2300	1500	1000	660	520	520	40000	37400	29200	8220	10200
14	8000	2300	1500	1000	660	520	540	47000	40800	25900	7710	10000
15	7500	2200	1500	950	660	520	560	60600	37400	25300	7540	9830
16	7000	2200	1500	950	660	520	580	65200	35600	24400	7380	9470
17	6600	2200	1400	950	660	520	620	58400	37000	22000	7060	9290
18	6200	2100	1400	950	660	520	660	46700	43500	20000	6740	8930
19	5800	2100	1400	950	660	520	700	39800	45900	19800	6580	8400
20	5600	2100	1400	950	660	520	740	40500	52300	18000	6580	8050
21	5400	2000	1400	880	600	470	800	46700	46700	16300	6740	7710
22	5000	2000	1300	880	600	470	900	49900	40500	16600	6740	7380
23	4800	2000	1300	880	600	470	1100	48700	35600	20800	7060	7220
24	4600	1900	1300	880	600	470	1300	42700	36000	24400	7710	7060
25	4400	1900	1300	880	600	470	1500	40800	57500	22600	8400	7220
26	4200	1900	1300	820	600	470	1800	38800	62400	20300	8400	7220
27	4000	1900	1300	820	600	470	2400	34200	57000	18600	8050	7380
28	3800	1900	1200	820	600	470	3000	27400	53500	17000	8050	8050
29	3600	1800	1200	820	---	470	3800	21300	47500	15800	7710	9650
30	3500	1800	1200	820	---	470	5000	17600	41600	14600	7540	10600
31	3400	---	1200	820	---	470	---	15800	---	13600	7540	---
TOTAL	334800	70100	45600	30120	18900	15770	32100	1144100	1333200	928900	269480	263030
MEAN	10800	2337	1471	972	671	509	1070	36910	44440	29960	8693	8768
MAX	40500	3300	1800	1200	740	540	5000	65200	62400	54800	12400	11000
MIN	3400	1800	1200	820	600	470	460	6000	20300	13600	6580	7060
CFSM	.58	.13	.08	.05	.04	.03	.06	1.97	2.38	1.60	.47	.47
IN.	.67	.14	.09	.06	.04	.03	.06	2.28	2.65	1.85	.54	.52
AC-FT	664100	139000	90450	59740	37290	31280	63670	2269000	2644000	1842000	534500	521700

CAL YR 1977 TOTAL 4919110 MEAN 13480 MAX 141000 MIN 700 CFSM .72 IN 9.79 AC-FT 9757000
WTR YR 1978 TOTAL 4486000 MEAN 12290 MAX 65200 MIN 460 CFSM .66 IN 8.92 AC-FT 8898000

15564900 KOYUKUK RIVER AT HUGHES--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1960-61, 1965-72, 1976 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
APR							
06...	1410	465	340	7.0	.0	192	0

15565235 OPHIR CREEK NEAR TAKOTNA

LOCATION.--Lat 63°08'42", long 156°31'15", in SE¼SW¼ sec.14, T.27 S., R.12 E., Hydrologic Unit 19030006, on right bank 25 ft (7.6 m) downstream from road crossing between airstrip and old town of Ophir, 500 ft (150 m) upstream from mouth, and 20 mi (32 km) northwest of Takotna.

DRAINAGE AREA.--6.19 mi^2 (16.03 km^2).

PERIOD OF RECORD.--August 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (177 m), from topographic map.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 360 ft^3/s (10.2 m^3/s) May 18, 1977, gage height, 4.70 ft (1.433 m), from rating curve extended above 10 ft^3/s (0.3 m^3/s), on basis of slope-conveyance study; no flow at times during most winter months.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft^3/s (1.53 m^3/s) June 30, gage height, 2.30 ft (0.701 m), from rating curve extended above 10 ft^3/s (0.3 m^3/s); no flow Dec. 20 to Apr. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	1.1	.20	.00	.00	.00	.00	.20	1.6	18	5.0	5.3
2	6.3	1.1	.20	.00	.00	.00	.00	.20	1.9	16	5.3	5.3
3	5.6	1.0	.20	.00	.00	.00	.00	.20	2.2	13	5.0	5.0
4	5.4	.90	.20	.00	.00	.00	.00	.30	2.1	10	4.6	5.0
5	5.2	.90	.20	.00	.00	.00	.00	.30	2.1	8.8	4.4	5.3
6	5.2	.80	.20	.00	.00	.00	.00	.30	2.1	7.5	4.4	5.0
7	4.8	.80	.20	.00	.00	.00	.00	.40	2.1	8.2	4.4	4.8
8	5.4	.70	.20	.00	.00	.00	.00	.50	2.1	7.5	4.4	4.6
9	5.2	.70	.10	.00	.00	.00	.00	.60	1.9	7.0	4.2	6.1
10	5.2	.70	.10	.00	.00	.00	.00	.90	1.9	6.4	4.2	6.7
11	5.2	.70	.10	.00	.00	.00	.00	1.8	2.1	5.8	4.2	6.4
12	5.0	.60	.10	.00	.00	.00	.00	3.0	2.1	5.6	4.6	6.1
13	4.5	.60	.10	.00	.00	.00	.00	4.5	2.5	5.0	4.6	5.6
14	4.0	.60	.10	.00	.00	.00	.00	6.0	5.8	5.0	4.8	5.0
15	3.5	.50	.10	.00	.00	.00	.00	10	22	5.0	4.6	5.0
16	3.5	.50	.10	.00	.00	.00	.00	8.0	9.6	5.0	5.0	5.3
17	3.5	.40	.10	.00	.00	.00	.00	6.5	7.2	4.6	5.0	5.0
18	3.0	.40	.10	.00	.00	.00	.00	5.5	7.0	4.4	5.0	4.8
19	3.0	.40	.10	.00	.00	.00	.10	4.6	7.5	4.6	5.6	4.6
20	3.0	.30	.00	.00	.00	.00	.10	4.2	6.1	4.6	9.4	4.4
21	2.5	.30	.00	.00	.00	.00	.10	3.4	4.8	4.4	18	4.2
22	2.5	.30	.00	.00	.00	.00	.10	2.8	22	4.4	13	3.5
23	2.0	.30	.00	.00	.00	.00	.10	2.4	22	4.2	9.9	3.5
24	2.0	.30	.00	.00	.00	.00	.10	2.0	19	9.6	8.5	3.5
25	1.8	.30	.00	.00	.00	.00	.10	1.8	15	11	7.2	3.5
26	1.8	.20	.00	.00	.00	.00	.10	1.6	13	7.8	6.7	3.1
27	1.6	.20	.00	.00	.00	.00	.10	1.5	12	6.7	6.1	3.1
28	1.6	.20	.00	.00	.00	.00	.10	1.3	10	5.8	5.6	3.1
29	1.4	.20	.00	.00	---	.00	.10	1.3	15	5.0	5.3	3.0
30	1.4	.20	.00	.00	---	.00	.20	1.3	38	4.8	5.0	3.0
31	1.2	---	.00	.00	---	.00	---	1.3	---	4.6	5.0	---
TOTAL	113.0	16.20	2.70	.00	.00	.00	1.30	78.70	262.7	220.3	189.0	138.8
MEAN	3.65	.54	.087	.000	.000	.000	.043	2.54	8.76	7.11	6.10	4.63
MAX	6.7	1.1	.20	.00	.00	.00	.20	10	38	18	18	6.7
MIN	1.2	.20	.00	.00	.00	.00	.00	.20	1.6	4.2	4.2	3.0
CFSM	.59	.09	.01	.000	.000	.000	.007	.41	1.42	1.15	.99	.75
IN.	.68	.10	.02	.00	.00	.00	.01	.47	1.58	1.32	1.14	.83
AC-FT	224	32	5.4	.00	.00	.00	2.6	156	521	437	375	275

CAL YR 1977 TOTAL 1756.40 MEAN 4.81 MAX 275 MIN .00 CFSM .78 IN 10.55 AC-FT 3480
WTR YR 1978 TOTAL 1022.70 MEAN 2.80 MAX 38 MIN .00 CFSM .45 IN 6.15 AC-FT 2030

NOTE.--No gage-height record Oct. 14 to May 31.

15565447 YUKON RIVER AT PILOT STATION

(National stream-quality accounting and pesticide networks station)

LOCATION.--Lat 61°56'04", long 162°52'50", in SW¼SE¼ sec.5, T.21 N., R.74 W., Hydrologic Unit 19030006, on right bank 0.2 mi (0.3 km) downstream from village of Pilot Station, 2.4 mi (3.9 km) downstream from Atchuelinguk River, and 19 mi (31 km) upstream from Andreafsky River.

DRAINAGE AREA.--321,000 mi² (831,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m), from topographic map.

REMARKS.--Water-discharge records good except those for Oct. 17 to Jan. 31 and May 1-31, which are poor, and Feb. 1 to Apr. 30, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 700,000 ft³/s (19,800 m³/s) May 23, 1976; maximum gage height, 30.2 ft (9.20 m) about May 23, 1976, from flood marks, backwater from ice; minimum daily discharge, about 37,000 ft³/s (1,000 m³/s) Apr. 11-26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 465,000 ft³/s (13,200 m³/s) July 7, gage height, 20.28 ft (6.181 m); minimum daily, about 42,000 ft³/s (1,190 m³/s) Apr. 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300000	171000	105000	70000	53400	50000	46000	44000	290000	440000	364000	342000
2	296000	168000	103000	70000	53000	50000	46000	45000	292000	442000	361000	340000
3	290000	165000	101000	69000	53000	50000	46000	46000	294000	444000	355000	337000
4	283000	163000	100000	68000	53000	49000	45000	47000	296000	448000	350000	332000
5	280000	161000	98000	67000	53000	49000	45000	48000	298000	454000	344000	329000
6	278000	157000	97000	67000	53000	49000	45000	50000	301000	458000	340000	325000
7	274000	155000	96000	66000	53000	49000	45000	52000	304000	462000	339000	323000
8	272000	153000	95000	66000	52000	49000	45000	55000	308000	463000	338000	319000
9	269000	150000	93000	65000	52000	49000	45000	57000	310000	462000	336000	313000
10	267000	148000	91000	64000	52000	49000	45000	59000	310000	459000	333000	306000
11	269000	146000	90000	64000	52000	49000	44500	64000	315000	458000	332000	302000
12	266000	143000	89000	63000	52000	49000	44000	70000	320000	456000	331000	299000
13	261000	141000	87000	63000	52000	49000	44000	80000	325000	453000	328000	294000
14	258000	139000	86000	62000	52000	48000	43000	87000	335000	450000	327000	285000
15	252000	136000	85000	62000	52000	48000	43000	99000	350000	446000	326000	280000
16	243000	134000	84000	61000	52000	48000	43000	118000	365000	442000	324000	275000
17	224000	132000	83000	61000	51000	48000	43000	130000	380000	435000	322000	272000
18	214000	130000	82000	60000	51000	48000	43000	140000	394000	426000	320000	271000
19	210000	128000	81000	60000	51000	48000	43000	163000	407000	420000	318000	265000
20	206000	126000	80000	59000	51000	47000	42000	170000	416000	413000	317000	261000
21	203000	124000	79000	59000	51000	47000	42000	190000	419000	408000	315000	258000
22	200000	121000	78000	58000	51000	47000	42000	210000	420000	404000	313000	254000
23	197000	119000	77000	58000	51000	47000	42000	230000	426000	399000	312000	248000
24	193000	117000	76000	58000	50000	47000	43000	250000	433000	395000	314000	243000
25	191000	115000	75000	57000	50000	47000	43000	270000	435000	391000	317000	244000
26	188000	113000	75000	57000	50000	47000	43000	290000	436000	387000	317000	246000
27	185000	112000	74000	57000	50000	46000	43000	305000	437000	384000	319000	244000
28	181000	110000	73000	56000	50000	46000	43000	310000	437000	382000	320000	240000
29	178000	109000	72000	56000	---	45000	43000	320000	438000	377000	326000	235000
30	176000	107000	71000	55000	---	45000	43000	310000	440000	374000	333000	230000
31	173000	---	70000	54000	---	45000	---	299000	---	369000	338000	---
TOTAL	7277000	4093000	2646000	1912000	1446400	1484000	1312500	4608000	10931000	13201000	10229000	8512000
MEAN	234700	136400	85350	61680	51660	47870	43750	148600	364400	425800	330000	283700
MAX	300000	171000	105000	70000	53400	50000	46000	320000	440000	463000	364000	342000
MIN	173000	107000	70000	54000	50000	45000	42000	44000	290000	369000	312000	230000
CFSM	.73	.43	.27	.19	.16	.15	.14	.46	1.14	1.33	1.03	.88
IN.	.84	.47	.31	.22	.17	.17	.15	.53	1.27	1.53	1.19	.99
AC-FT	14430000	8118000	5248000	3792000	2869000	2944000	2603000	9140000	21680000	26180000	20290000	16880000

CAL YR 1977 TOTAL 77797000 MEAN 213100 MAX 668000 MIN 44000 CFSM .66 IN 9.02 AC-FT 154300000
WTR YR 1978 TOTAL 67651900 MEAN 185300 MAX 463000 MIN 42000 CFSM .58 IN 7.84 AC-FT 134200000

NOTE.--No gage-height record Oct. 17 to May 31.

15565447 YUKON RIVER AT PILOT STATION--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-56, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
FEB									
01...	1700	2230	--	53400	300	6.6	--	6.0	--
01...	1701	--	1930	--	295	--	.0	--	4.2
01...	1702	--	1380	--	295	--	.0	--	4.1
01...	1703	--	1230	--	295	--	.0	--	4.2
APR									
11...	1700	2150	--	44500	305	7.0	--	2.0	--
11...	1701	--	1750	--	305	7.0	.0	--	2.2
11...	1702	--	1400	--	305	7.0	.0	--	2.6
11...	1703	--	1200	--	305	--	.0	--	--
11...	1704	--	1000	--	305	--	.0	--	--
11...	1705	--	800	--	305	7.0	.0	--	--
JUN									
01...	1801	2570	2270	295000	150	--	11.0	--	10.6
01...	1802	--	1770	--	155	--	11.0	--	10.6
01...	1803	--	920	--	155	--	11.0	--	10.6
28...	1000	2830	--	483000	162	7.3	--	80	--
28...	1001	--	2530	--	162	7.1	12.0	--	10.8
28...	1002	--	2230	--	165	7.2	12.5	--	10.6
28...	1003	--	1930	--	162	7.3	12.5	--	10.6
28...	1004	--	1580	--	165	7.5	12.5	--	10.6
28...	1005	--	980	--	165	7.5	12.5	--	10.5
AUG									
22...	1900	2545	--	314000	215	7.8	14.5	260	--
22...	1901	--	2500	--	215	--	14.5	--	9.7
22...	1902	--	2150	--	218	7.8	14.5	--	9.6
22...	1903	--	1950	--	216	7.8	14.5	--	9.6
22...	1904	--	1650	--	219	7.8	14.5	--	9.6
22...	1905	--	1150	--	220	7.8	14.5	--	9.6
SEP									
27...	1000	2470	--	188000	218	7.8	8.5	63	--
27...	1001	--	1100	--	218	7.8	8.5	--	11.3
27...	1002	--	1600	--	218	7.8	8.5	--	11.3
27...	1003	--	1950	--	218	7.8	8.5	--	11.3
27...	1004	--	2200	--	218	7.7	8.5	--	11.3
27...	1005	--	2450	--	218	7.8	8.5	--	11.3

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
FEB											
01...	1700	<1	--	160	26	47	11	2.7	1.4	167	0
APR											
11...	1700	<1	<1	--	--	--	--	2.1	.9	--	0
JUN											
28...	1000	K2	K1	89	32	26	5.8	1.8	1.0	70	0
AUG											
22...	1900	K11	--	100	22	29	6.8	3.5	1.5	95	0
SEP											
27...	1000	<1	K1	110	13	30	7.3	3.0	1.2	112	0

K NON-IDEAL COLONY COUNT

15565447 YUKON RIVER AT PILOT STATION--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
FEB										
01...	24	1.4	.2	12	181	182	.16	.07	.80	.07
APR										
11...	16	.6	.1	12	--	--	.21	.01	.60	.61
JUN										
28...	25	1.5	.1	4.6	97	101	.08	.01	.44	.45
AUG										
22...	23	1.1	.1	6.9	119	119	.08	.01	.60	.61
SEP										
27...	24	1.2	.1	7.5	132	130	.08	.01	.46	.47

DATE	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)
FEB										
01...	.02	.05	.23	.02	.01	3.0	2.9	--	21	4
APR										
11...	.45	.16	.82	.01	.00	--	--	--	--	3
JUN										
28...	.22	.23	.53	.32	.00	--	6.4	1.1	650	308
AUG										
22...	.43	.18	.69	.34	.00	9.6	4.2	--	--	676
SEP										
27...	.00	.60	.55	.16	.01	--	5.1	2.0	--	140

DATE	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
FEB										
01...	577	--	--	--	--	--	--	--	--	--
APR										
11...	360	--	--	--	--	--	--	--	--	--
JUN										
28...	492000	16	21	28	49	64	81	93	99	100
AUG										
22...	573000	--	--	--	--	--	96	--	--	--
SEP										
27...	71100	--	--	--	--	--	91	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
FEB										
01...	1700	2	1	1	100	0	200	1	0	1
JUN										
28...	1000	2	2	0	300	100	200	1	1	0
AUG										
22...	1400	6	5	1	200	0	200	2	2	0
SEP										
27...	1000	3	2	1	0	0	100	1	1	0

BEST DOCUMENT AVAILABLE

15565447 YUKON RIVER AT PILOT STATION--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
FEB 01...	10	10	0	0	0	0	4	2	2	1100
JUN 28...	10	10	0	3	3	0	49	43	6	9200
AUG 22...	20	20	0	10	10	0	47	44	3	29000
SEP 27...	0	0	0	3	3	0	12	10	2	5900

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)
FEB 01...	1000	100	5	5	0	120	0	130	.0	.0
JUN 28...	9000	180	--	--	5	220	210	10	.1	.1
AUG 22...	29000	30	--	--	0	520	520	0	.0	.0
SEP 27...	5800	80	--	--	5	150	140	10	.0	.0

DATE	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
FEB 01...	.0	12	7	5	0	0	0	10	0	10
JUN 28...	.0	0	0	0	0	0	0	50	50	0
AUG 22...	.0	1	1	0	0	0	0	80	70	10
SEP 27...	.0	0	0	0	0	0	0	30	20	10

DATE	TIME	SIMAZINE TOTAL COULSON COND. (UG/L)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
FEB 01...	1700	--	ND	ND	--	ND	ND	ND	ND
MAR 20...	1700	--	--	--	--	--	--	--	--
JUL 06...	1000	ND	ND	ND	ND	ND	ND	ND	ND
AUG 22...	1900	--	ND	ND	--	ND	ND	ND	ND

DATE	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)
FEB 01...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 20...	ND	--	--	ND	--	--	--	ND	--
JUL 06...	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15565447 YUKON RIVER AT PILOT STATION--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
FEB								
01...	ND	ND	ND	ND	ND	ND	ND	ND
MAR								
20...	ND	ND	ND	--	ND	--	--	--
JUL								
06...	ND	ND	ND	ND	ND	--	--	--
AUG								
22...	ND	ND	ND	ND	ND	--	--	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE	FEB 1,78	JUN 28,78	AUG 22,78	SEP 27,78
TIME	1700	1000	1900	1000
TOTAL CELLS/ML	21	650	38	470
DIVERSITY: DIVISION	0.0	0.2	0.0	1.5
.CLASS	0.0	0.2	0.0	1.5
..ORDER	0.0	1.2	0.0	1.8
...FAMILY	0.0	2.1	0.0	1.9
....GENUS	0.0	2.6	0.0	2.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	21#	100	--	-	--	-	11	2
....DICTYOSPHAERIUM	--	-	--	-	--	-	96#	20
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	38#	100	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	93	14	--	-	11	2
....MELOSIRA	--	-	190#	29	--	-	80#	17
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	46	7	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	23	4	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	11	2
....SYNEDRA	--	-	--	-	--	-	48	10
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	23	4	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	23	4	--	-	--	-
....PINNULARIA	--	-	23	4	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	210#	32	--	-	5	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	210#	45
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	23	4	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

15621000 SNAKE RIVER NEAR NOME

LOCATION.--Lat 64°33'51", long 165°30'26", in SE¼ sec.5, T.11 S., R.34 W., Hydrologic Unit 19020002, on downstream side of bridge on Nome-Teller Highway, 5.4 mi (8.7 km) northwest of Nome.

DRAINAGE AREA.--85.7 mi² (222 km²), approximately.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8.58 ft (2.615 m) National Geodetic Vertical Datum of 1929 (USC&GS data furnished by Alaska Department of Transportation, Nome).

REMARKS.--Records good, except those for period of no gage-height record, Oct. 13 to May 17, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 178 ft³/s (5.041 m³/s), 28.21 in/yr (717 mm/yr), 129,000 acre-ft/yr (159 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s (119 m³/s) June 2, 1966, gage height, 11.90 ft (3.627 m); maximum gage height, 13.59 ft (4.142 m) May 15, 1975, backwater from ice; minimum daily discharge, about 1.0 ft³/s (0.028 m³/s) Feb. 25 to May 15, 1971, but may be no flow at times during some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,800 ft³/s (79.3 m³/s) Sept. 24, gage height, 10.43 ft (3.179 m); minimum daily, about 26 ft³/s (0.74 m³/s) Feb. 11 to Apr. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	140	50	36	28	26	26	30	264	332	202	448
2	500	130	50	34	28	26	26	30	256	308	178	418
3	612	130	48	34	28	26	26	30	208	296	158	405
4	527	120	48	34	28	26	26	32	405	274	152	452
5	506	120	48	34	28	26	26	32	308	266	146	662
6	482	110	46	34	28	26	26	34	262	254	140	654
7	452	110	46	34	28	26	26	36	228	246	152	637
8	422	100	46	34	28	26	26	40	202	228	172	581
9	448	100	44	34	28	26	26	42	194	224	156	560
10	442	95	44	34	28	26	26	46	170	226	150	574
11	390	90	44	32	26	26	26	50	168	218	142	612
12	355	90	44	32	26	26	26	60	174	204	140	527
13	340	85	42	32	26	26	26	70	166	194	140	488
14	320	80	42	32	26	26	26	90	180	186	140	473
15	300	80	42	32	26	26	26	150	284	176	134	438
16	280	75	42	32	26	26	26	300	485	166	132	412
17	260	75	40	32	26	26	26	600	410	156	128	388
18	260	70	40	32	26	26	26	500	470	150	140	365
19	240	70	40	30	26	26	26	532	402	146	184	348
20	240	65	40	30	26	26	26	360	310	162	232	325
21	220	65	38	30	26	26	26	268	317	154	204	308
22	220	60	38	30	26	26	26	361	1120	140	192	296
23	200	60	38	30	26	26	26	556	748	132	204	298
24	190	60	38	30	26	26	26	804	476	124	260	1260
25	180	60	38	30	26	26	26	641	382	118	240	1960
26	170	55	36	30	26	26	26	444	322	110	236	1120
27	170	55	36	30	26	26	28	312	284	108	256	908
28	160	55	36	28	26	26	28	282	304	108	311	788
29	150	55	36	28	---	26	28	260	400	138	470	596
30	150	50	36	28	---	26	28	228	372	182	530	620
31	140	---	36	28	---	26	---	228	---	214	488	---
TOTAL	9896	2510	1292	980	748	806	788	7448	10271	5940	6509	17921
MEAN	319	83.7	41.7	31.6	26.7	26.0	26.3	240	342	192	210	597
MAX	612	140	50	36	28	26	28	804	1120	332	530	1860
MIN	140	50	36	28	26	26	26	30	166	108	128	296
CFSM	3.72	.98	.49	.37	.31	.30	.31	2.80	3.99	2.24	2.45	6.97
IN.	4.30	1.09	.56	.43	.32	.35	.34	3.23	4.46	2.58	2.83	7.78
AC-FT	19630	4980	2560	1940	1480	1600	1560	14770	20370	11780	12910	35550

CAL YR 1977 TOTAL 54391 MEAN 149 MAX 1700 MIN 16 CFSM 1.74 IN 23.61 AC-FT 107900
WTR YR 1978 TOTAL 65109 MEAN 178 MAX 1860 MIN 26 CFSM 2.08 IN 28.26 AC-FT 129100

BEST DOCUMENT AVAILABLE

15668200 CRATER CREEK NEAR NOME

LOCATION.--Lat 64°55'48", long 164°52'12", in NW¼NW¼ sec.36, T.6 S., R.31 W., Hydrologic Unit 19020002, on right bank 15 ft (5 m) upstream from culvert at mile 43 (69 km) on Nome-Kougarok Highway, 1.1 mi (1.8 km) upstream from mouth, and 34 mi (55 km) northeast of Nome.

DRAINAGE AREA.--21.9 mi^2 (56.7 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1964-65, 1967-75. August 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 480 ft (150 m), from topographic map. Sept. 18, 1964 to Aug. 29, 1975, crest-stage gage at same site and datum.

REMARKS.--Records fair except those for Oct. 13 to May 30, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,540 ft^3/s (71.9 m^3/s) July 10, 1975, gage height, 19.71 ft (6.008 m) from floodmarks, road and culvert washed out, from slope-area measurement of peak flow; no flow April 11-25, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft^3/s (35.1 m^3/s) June 22, gage height, 13.97 ft (4.258 m); no flow Apr. 11-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	22	8.5	3.0	1.5	1.0	.50	14	95	111	75	120
2	160	20	8.0	3.0	1.5	1.0	.50	20	96	103	60	105
3	278	20	8.0	3.0	1.5	1.0	.50	25	67	128	52	97
4	167	20	7.5	3.0	1.5	1.0	.50	30	509	133	46	119
5	143	18	7.0	3.0	1.5	1.0	.50	40	151	127	44	253
6	126	18	7.0	2.5	1.5	1.0	.50	60	86	135	42	290
7	111	18	6.5	2.5	1.5	1.0	.50	70	56	136	50	212
8	99	16	6.5	2.5	1.5	1.0	.50	80	64	111	42	158
9	106	16	6.0	2.5	1.5	1.0	.50	90	71	133	40	139
10	96	16	6.0	2.5	1.5	1.0	.50	100	98	165	38	184
11	84	14	6.0	2.5	1.5	1.0	.00	120	87	131	36	277
12	78	14	5.5	2.5	1.5	1.0	.00	130	68	118	35	204
13	75	14	5.5	2.5	1.5	1.0	.00	140	77	105	34	190
14	70	14	5.5	2.5	1.5	1.0	.00	160	171	91	33	154
15	65	12	5.0	2.5	1.5	1.0	.00	180	393	92	32	142
16	60	12	5.0	2.0	1.5	1.0	.00	200	205	85	32	128
17	55	12	5.0	2.0	1.5	1.0	.00	160	173	74	35	119
18	50	12	4.5	2.0	1.5	1.0	.00	120	250	68	60	109
19	46	12	4.5	2.0	1.5	1.0	.00	150	120	64	80	100
20	44	10	4.5	2.0	1.5	1.0	.00	90	98	58	90	90
21	40	10	4.5	2.0	1.0	.50	.00	50	197	55	70	83
22	38	10	4.5	2.0	1.0	.50	.00	75	681	52	65	77
23	34	10	4.0	2.0	1.0	.50	.00	120	308	50	61	76
24	32	10	4.0	2.0	1.0	.50	.00	170	207	46	58	228
25	30	10	4.0	2.0	1.0	.50	.00	100	145	46	54	488
26	30	9.5	4.0	2.0	1.0	.50	1.0	60	120	44	52	352
27	28	9.5	3.5	2.0	1.0	.50	2.0	30	86	42	54	208
28	26	9.0	3.5	2.0	1.0	.50	4.0	30	92	40	125	157
29	24	9.0	3.5	2.0	---	.50	7.0	30	114	55	407	136
30	24	8.5	3.5	2.0	---	.50	10	40	122	75	237	124
31	22	---	3.5	2.0	---	.50	---	48	---	95	144	---
TOTAL	2397	405.5	164.5	72.0	38.0	25.50	29.00	2732	5007	2768	2283	5119
MEAN	77.3	13.5	5.31	2.32	1.36	.82	.97	88.1	167	89.3	73.6	171
MAX	278	22	8.5	3.0	1.5	1.0	10	200	681	165	407	488
MIN	22	8.5	3.5	2.0	1.0	.50	.00	14	56	40	32	76
CFSM	3.53	.62	.24	.11	.06	.04	.04	4.02	7.63	4.08	3.36	7.81
IN.	4.07	.69	.28	.12	.06	.04	.05	4.64	8.50	4.70	3.88	8.69
AC-FT	4750	804	326	143	75	51	58	5420	9930	5490	4530	10150

CAL YR 1977 TOTAL 22148.00 MEAN 60.7 MAX 605 MIN 1.0 CFSM 2.77 IN 37.62 AC-FT 43930
WTR YR 1978 TOTAL 21040.50 MEAN 57.6 MAX 681 MIN .00 CFSM 2.63 IN 35.74 AC-FT 41730

NOTE.--No gage-height record Oct. 13 to May 31 and July 20 to Aug. 22.

15744000 KOBUK RIVER AT AMBLER

LOCATION.--Lat 67°05'13", long 157°50'51", in SE¼ sec.31, T.20 N., R.5 E., Hydrologic Unit 19020001, on right bank at village of Ambler and 2.0 mi (3.2 km) downstream from Ambler River.

DRAINAGE AREA.--6,570 mi² (17,020 km²), approximately.

PERIOD OF RECORD.--July 1965 to September 1978 (discontinued).

GAGE.--Nonrecording gage read twice daily. Altitude of gage is 30 ft (9 m), from topographic map.

REMARKS.--Records fair except for period of no gage-height record, Oct. 2 to June 6, which are estimated and poor.

AVERAGE DISCHARGE.--13 years, 8,858 ft³/s (250.9 m³/s), 18.31 in/yr (465 mm/yr), 6,418,000 acre-ft/yr (7.91 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 95,000 ft³/s (2,690 m³/s) May 29, 1971; maximum gage height, 46.73 ft (14.243 m) about May 25, 1973, from floodmarks, backwater from ice; minimum daily discharge, 700 ft³/s (20 m³/s) Apr. 1-15, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 30,000 ft³/s (850 m³/s) May 16, minimum daily, 1,200 ft³/s (34 m³/s) Mar. 29 to Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22000	4000	2200	1600	1400	1300	1200	1400	17000	22000	11500	10900
2	21000	4000	2200	1600	1400	1300	1200	1400	19000	23500	13600	10300
3	20000	3800	2200	1600	1400	1300	1200	1500	21000	25000	12800	10000
4	19000	3800	2200	1600	1400	1300	1200	1600	23000	25500	12400	10000
5	18000	3800	2200	1500	1400	1300	1200	1700	25000	23000	11800	10600
6	17000	3600	2000	1500	1400	1300	1200	1800	27000	19500	11200	12800
7	16000	3600	2000	1500	1400	1300	1200	2000	24500	18500	10600	14800
8	15000	3600	2000	1500	1400	1300	1200	2200	22000	18000	10000	16000
9	14000	3400	2000	1500	1400	1300	1200	2600	19500	19000	9700	15600
10	13000	3400	2000	1500	1400	1300	1200	3000	16500	17000	9400	14800
11	12000	3400	2000	1500	1400	1300	1200	4000	15600	17000	9100	14000
12	11000	3200	1800	1500	1400	1300	1200	6000	15200	15600	8800	14000
13	10000	3200	1800	1500	1400	1300	1200	10000	15600	14800	8500	14000
14	9000	3200	1800	1500	1400	1300	1200	16000	15200	15000	8200	14400
15	8500	3000	1800	1500	1400	1300	1200	22000	15200	14400	7900	14000
16	8000	3000	1800	1500	1400	1300	1200	30000	15600	14000	7900	13600
17	7500	3000	1800	1500	1400	1300	1200	27000	16500	13600	7600	12800
18	7000	3000	1800	1500	1400	1300	1200	25000	17500	13000	7600	12100
19	6600	2800	1800	1500	1400	1300	1200	23000	17000	12000	7600	11800
20	6200	2800	1800	1500	1400	1300	1200	23000	16500	12800	7900	11500
21	5800	2800	1800	1500	1400	1300	1200	22000	16500	14800	8800	11200
22	5600	2800	1600	1500	1400	1300	1200	22000	16000	17500	9700	10600
23	5400	2600	1600	1500	1400	1300	1200	21000	17500	18000	10600	10300
24	5200	2600	1600	1500	1400	1300	1200	20000	18500	17000	10900	10600
25	5000	2600	1600	1500	1400	1300	1200	19000	21000	14800	10300	11500
26	4800	2600	1600	1500	1400	1300	1200	18000	22500	12800	10000	17500
27	4600	2400	1600	1500	1400	1300	1200	17000	22500	12100	9100	23500
28	4400	2400	1600	1500	1400	1300	1200	16000	21000	11200	9700	23000
29	4400	2400	1600	1500	---	1200	1300	15000	18500	10900	10900	22000
30	4200	2400	1600	1500	---	1200	1300	14000	19500	10300	11200	19000
31	4200	---	1600	1500	---	1200	---	15000	---	10600	11200	---
TOTAL	314400	93200	57000	46900	39200	40000	36200	404200	567900	503200	306500	417200
MEAN	10140	3107	1839	1513	1400	1290	1207	13040	18930	16230	9887	13910
MAX	22000	4000	2200	1600	1400	1300	1300	30000	27000	25500	13600	23500
MIN	4200	2400	1600	1500	1400	1200	1200	1400	15200	10300	7600	10000
CFSM	1.54	.47	.28	.23	.21	.20	.18	1.99	2.88	2.47	1.51	2.12
IN.	1.78	.53	.32	.27	.22	.23	.20	2.29	3.22	2.85	1.74	2.36
AC-FT	623600	184900	113100	93030	77750	79340	71800	801700	1126000	998100	607900	827500

CAL YR 1977 TOTAL 2715000 MEAN 7438 MAX 37700 MIN 1300 CFSM 1.13 IN 15.37 AC-FT 5385000
WTR YR 1978 TOTAL 2825900 MEAN 7742 MAX 30000 MIN 1200 CFSM 1.18 IN 16.00 AC-FT 5605000

15744500 KOBUK RIVER NEAR KIANA
(National stream-quality accounting network station)

LOCATION.--Lat 66°58'27", long 160°07'51", in NW¼SE¼ sec.11, T.18 N., R.7 W., Hydrologic Unit 19020001, on left bank 5.8 mi (9.3 km) upstream from Portage Creek, 9.7 mi (15.6 km) upstream from Squirrel River, and 9.8 mi (15.8 km) upstream from Kiana.

DRAINAGE AREA.--9,520 mi^2 (24,660 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 35 ft (10.7 m), from topographic map.

REMARKS.--Water-discharge records estimated and poor for the period of no gage-height record, Oct. 14 to June 9, fair otherwise. Revision of records September 1976 to current year may be required upon further definition of stage-discharge relation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,000 ft^3/s (1,700 m^3/s) about June 11, 1977, gage height, 51.7 ft (15.76 m), from floodmarks; minimum daily, 1,600 ft^3/s (45 m^3/s) Apr. 1-22, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56,300 ft^3/s (1,590 m^3/s) about May 18, gage height, 49.12 ft (14.982 m), from floodmarks; minimum daily, 1,600 ft^3/s (45 m^3/s) Apr. 1-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29800	5000	2400	2000	1900	1800	1600	2100	23000	30400	20700	19400
2	28900	4800	2400	2000	1900	1800	1600	2200	22000	35800	26800	18300
3	27900	4600	2400	2000	1900	1800	1600	2400	26000	36500	25600	17000
4	28000	4500	2400	2000	1900	1800	1600	2600	30000	35900	23600	16000
5	28300	4400	2400	2000	1900	1800	1600	2900	34000	35100	21900	16500
6	26500	4300	2400	2000	1900	1800	1600	3300	37000	31800	20700	21700
7	25200	4200	2400	2000	1900	1800	1600	4000	41000	28900	18800	27800
8	23600	4000	2400	2000	1900	1800	1600	5000	47000	27300	17200	30700
9	21400	3900	2400	2000	1900	1800	1600	7000	40000	26000	16200	30200
10	20400	3800	2400	2000	1900	1800	1600	10000	36000	26200	15300	28500
11	19700	3700	2200	2000	1900	1800	1600	13000	33500	25700	14400	26400
12	18200	3600	2200	2000	1900	1800	1600	19000	30900	24000	13500	24700
13	16100	3500	2200	2000	1900	1800	1600	25000	27900	22200	12900	23900
14	14000	3500	2200	2000	1900	1800	1600	35000	27200	21200	12400	23800
15	13000	3400	2200	2000	1900	1800	1600	42000	28800	20700	11800	23700
16	12000	3300	2200	1900	1900	1800	1600	41000	30500	19200	11300	23000
17	11000	3200	2200	1900	1900	1800	1600	45000	29400	18500	10900	22000
18	10000	3200	2200	1900	1900	1800	1600	52000	27600	18200	10600	21100
19	9500	3100	2200	1900	1900	1800	1600	48000	29600	17400	10300	19800
20	9000	3000	2200	1900	1900	1800	1600	45000	32600	16600	10500	18600
21	8200	3000	2200	1900	1800	1700	1600	42000	28800	16700	11600	17900
22	7800	2900	2200	1900	1800	1700	1600	40000	26800	21800	12900	17000
23	7400	2900	2200	1900	1800	1700	1700	42000	31500	25000	13400	16300
24	7000	2800	2200	1900	1800	1700	1700	38000	39200	27800	14200	15900
25	6600	2800	2200	1900	1800	1700	1700	35000	35000	26900	15200	18200
26	6400	2700	2200	1900	1800	1700	1800	37000	31500	23700	15000	28600
27	6200	2700	2200	1900	1800	1700	1800	34000	31400	20600	13900	47300
28	6000	2600	2200	1900	1800	1700	1800	32000	30600	18500	13400	50500
29	5800	2600	2200	1900	---	1700	1900	29000	28500	17000	15200	45600
30	5400	2600	2200	1900	---	1700	2000	27000	27900	16000	19500	40000
31	5200	---	2200	1900	---	1700	---	26000	---	15800	20400	---
TOTAL	484500	104600	70200	60400	52400	54700	49600	788500	945200	747400	490100	750400
MEAN	14980	3487	2265	1948	1871	1765	1653	25440	31510	24110	15810	25010
MAX	29800	5000	2400	2000	1900	1800	2000	52000	47000	36500	26800	50500
MIN	5200	2600	2200	1900	1800	1700	1600	2100	22000	15800	10300	15900
CFSM	1.57	.37	.24	.21	.20	.19	.17	2.67	3.31	2.53	1.66	2.63
IN.	1.82	.41	.27	.24	.20	.21	.19	3.08	3.69	2.92	1.92	2.93
AC-FT	921300	207500	139200	119800	103900	108500	98380	1564000	1875000	1482000	972100	1488000

CAL YR 1977 TOTAL 3730460 MEAN 10220 MAX 50000 MIN 1800 CFSM 1.07 IN 14.58 AC-FT 7399000
WTR YR 1978 TOTAL 4578000 MEAN 12540 MAX 52000 MIN 1600 CFSM 1.32 IN 17.89 AC-FT 9080000

15744500 KOBUK RIVER NEAR KIANA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE.--June to September 1978.

INSTRUMENTATION.--Water-temperature recorder since June 10, 1978.

REMARKS.--Sensor out of water Aug. 10 to 23.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE.--Maximum, 19.0°C, July 14, 15; minimum, 0.0°C during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
FEB 02...	1500	1900	190	6.8	.0	2.0	--	K1	K1	98	0
APR 21...	1300	1620	205	7.0	.0	1.0	--	K0	K0	100	15
JUN 10...	1400	34200	95	7.8	10.0	7.8	11.6	K1	--	51	8
JUL 25...	1430	28100	148	--	15.5	4.0	9.8	K6	K1	81	19
AUG 25...	1300	15400	155	--	12.0	3.6	10.6	K7	K2	79	15
SEP 21...	1330	18600	160	7.4	4.5	2.0	9.0	K7	K6	74	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
FEB 02...	31	5.0	.9	.5	122	0	13	1.1	.1	5.5	110
APR 21...	32	5.4	.8	.5	107	0	9.4	.6	.1	5.7	111
JUN 10...	16	2.6	.6	.3	55	0	7.7	.5	.0	2.2	50
JUL 25...	26	3.9	.9	.5	--	--	15	.4	.1	2.8	86
AUG 25...	25	4.0	1.0	.5	--	--	12	.7	.1	3.2	89
SEP 21...	23	4.1	.9	.3	80	0	18	.7	.1	3.1	91

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	118	.27	.02	.03	.05	.00	.09	.32	.02	.01	3.5
APR 21...	107	.28	.03	.32	.35	.18	.17	.63	.00	.00	.5
JUN 10...	83	.15	.01	.24	.25	.14	.11	.40	.07	.01	--
JUL 25...	87	.12	.00	.26	.26	.00	.29	.38	.03	.00	2.0
AUG 25...	85	.10	.02	.38	.40	.00	.55	.50	.03	.01	2.6
SEP 21...	90	.14	.01	.35	.36	.00	.39	.50	.01	.01	4.1

K NON-IDEAL COLONY COUNT

BEST DOCUMENT AVAILABLE

BEST DOCUMENT AVAILABLE

15744500 KOBUK RIVER NEAR KIANA--Continued

DATE	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 02...	--	--	0	--	--	--	--	4	21	--
APR 21...	--	--	0	--	--	--	--	--	--	--
JUN 10...	2.5	.4	290	--	--	--	--	145	13400	67
JUL 25...	--	--	400	3.86	4.88	2.18	.030	42	3190	71
AUG 25...	--	--	--	--	--	--	--	18	748	58
SEP 21...	--	--	--	--	--	--	--	5	251	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 02...	1500	1	0	1	100	0	100	2	1	1
APR 21...	1300	9	6	3	200	0	200	1	1	0
JUN 10...	1400	1	1	0	200	0	200	2	1	1
AUG 25...	1300	1	0	1	300	0	300	--	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
FEB 02...	0	0	0	0	0	0	17	13	4	260
APR 21...	0	0	0	3	3	0	5	5	0	250
JUN 10...	5	5	0	0	0	0	--	--	32	2100
AUG 25...	0	0	0	0	0	0	50	37	13	1300

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)
FEB 02...	--	60	28	23	5	40	0	50	.1	.1
APR 21...	--	30	10	8	2	30	0	30	.0	.0
JUN 10...	--	70	38	32	6	50	50	0	.1	.1
AUG 25...	1300	50	--	--	--	40	30	10	.0	.0

DATE	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
FEB 02...	.0	0	0	0	0	0	0	50	20	30
APR 21...	.0	0	0	0	0	0	0	10	10	0
JUN 10...	.0	0	0	0	0	0	0	560	470	90
AUG 25...	.0	0	0	0	0	0	0	60	40	20

15744500 KOBUK RIVER NEAR KIANA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE	FEB 2,78	APR 21,78	JUN 10,78	JUL 25,78	AUG 25,78	SEP 21,78
TIME	1500	1300	1400	1430	1300	1330
TOTAL CELLS/ML	0	0	290	400	280	76
DIVERSITY: DIVISION	0.0	0.0	0.0	1.0	1.4	1.3
.CLASS	0.0	0.0	0.0	1.0	1.4	1.3
..ORDER	0.0	0.0	0.0	1.0	1.8	1.6
...FAMILY	0.0	0.0	0.9	2.7	2.4	2.0
....GENUS	0.0	0.0	1.2	2.7	2.4	2.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	14	5	2	2
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	28	10	4	5
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	72#	18	--	-	--	-
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-	2	2
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	--	-	21	7	2	2
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	110#	29	--	-	4	5
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	43	11	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	43	11	7	2	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	220#	75	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	15	5	43	11	28	10	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	57	14	21	7	9	12
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	15	5	--	-	21	7	11	14
...TABELLARIACEAE												
....TABELLARIA	--	-	--	-	44	15	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	140#	50	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	44#	58
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	29	7	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

15744500 KOBUK RIVER NEAR KIANA--Continued

TEMPERATURE (DEG. C) OF WATER, JULY TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	12.0	11.0	11.5	14.5	13.0	13.5	12.5	11.0	11.5
2	---	---	---	13.5	11.0	12.0	14.5	12.5	13.5	12.5	11.5	12.0
3	---	---	---	14.0	12.0	13.0	15.0	12.5	14.0	13.0	11.5	12.5
4	---	---	---	14.5	13.0	13.5	14.5	13.5	14.0	12.5	12.0	12.5
5	---	---	---	15.0	13.5	14.0	15.5	13.5	14.5	12.0	11.5	12.0
6	---	---	---	15.0	14.0	14.5	15.0	13.0	14.0	11.5	10.5	11.0
7	---	---	---	15.5	14.0	15.0	15.5	13.0	14.0	10.0	9.5	10.0
8	---	---	---	16.0	14.5	15.0	14.0	12.5	13.5	10.0	9.0	9.5
9	---	---	---	15.5	14.5	15.0	16.0	12.0	14.0	10.0	9.0	9.5
10	12.0	9.5	10.5	16.5	14.5	15.0	---	---	---	10.0	1.0	9.5
11	12.0	10.5	11.5	17.5	14.5	16.0	---	---	---	10.0	9.0	9.5
12	13.5	10.5	12.0	18.0	16.0	17.0	---	---	---	9.5	8.0	9.0
13	14.0	12.0	13.0	18.0	16.5	17.0	---	---	---	9.5	8.0	9.0
14	15.5	13.0	14.0	19.0	17.0	18.0	---	---	---	10.0	9.0	9.5
15	14.5	13.5	14.0	19.0	16.5	18.0	---	---	---	9.5	8.5	9.0
16	14.0	13.0	13.5	18.0	16.0	17.0	---	---	---	9.0	9.0	9.0
17	13.5	12.0	12.5	17.5	15.5	16.5	---	---	---	9.0	8.5	8.5
18	13.5	12.0	12.5	18.5	15.5	17.0	---	---	---	9.0	8.0	8.5
19	13.5	11.5	12.5	18.5	16.0	17.5	---	---	---	8.5	7.5	8.0
20	13.5	11.0	12.0	17.5	15.5	16.5	---	---	---	7.5	5.5	6.5
21	13.0	11.5	12.5	17.0	15.0	15.5	---	---	---	5.5	4.5	5.0
22	13.0	12.0	12.5	16.0	14.5	15.0	---	---	---	5.5	3.5	4.5
23	11.5	10.5	11.0	16.5	14.0	15.0	---	---	---	4.0	3.0	3.5
24	11.0	9.5	10.0	16.5	14.5	15.5	13.0	11.5	12.0	3.5	2.5	3.0
25	12.0	9.5	11.0	16.5	14.5	15.5	12.5	11.0	12.0	4.0	2.5	3.5
26	13.0	10.5	11.5	16.5	14.0	15.5	12.5	11.5	12.0	4.5	4.0	4.0
27	13.5	11.5	12.5	17.0	14.5	15.5	12.0	11.5	11.5	4.5	3.5	4.0
28	12.5	12.0	12.5	17.0	14.0	15.5	12.0	11.5	11.5	4.0	3.0	3.5
29	12.0	11.5	11.5	15.0	14.0	14.5	12.5	11.0	11.5	3.0	2.5	3.0
30	12.0	11.0	11.5	15.5	14.0	14.5	12.0	10.5	11.5	3.0	1.0	2.0
31	---	---	---	15.0	13.5	14.0	12.0	10.5	11.5	---	---	---
MONTH	15.5	9.5	12.0	19.0	11.0	15.5	16.0	10.5	13.0	13.0	1.0	8.0
YEAR	19.0											

15798700 NUNAVAK CREEK NEAR BARROW

LOCATION.--Lat 71°15'35", long 156°46'57", in SE¼ sec.18, T.22 N., R.18 W., North Slope Borough, Hydrologic Unit 19010003, 0.7 mi (1.1 km) downstream from Emaiksoun Lake, 1.2 mi (1.9 km) upstream from Nunavak Bay, and 2.3 mi (3.7 km) south of Barrow Post Office.

DRAINAGE AREA.--2.79 mi^2 (7.23 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR AK-76-1:1972

GAGE.--Water-stage recorder. Altitude of gage is 19 ft (5.8 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years, 0.73 ft^3/s (0.021 m^3/s), 3.55 in/yr (90 mm/yr), 529 acre-ft/yr (652,000 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66 cfs (1.87 m^3/s) June 23, 1974, gage height, 2.92 ft (0.890 m), flow over snow; maximum gage height, 4.27 ft (1.301 m) June 19, 1974, backwater from snow and ice; no flow during all winter months and at times during summer months.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 16 ft^3/s (0.45 m^3/s) June 12, flow over snow; maximum gage height, 2.90 ft (0.884 m) June 9-12, backwater from snow and ice; no flow prior to June 7, July 16-26, Aug. 3-24, Aug. 30 to Sept. 3, and Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.60	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.8	.20	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.40
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.85
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	.76
7	.00	.00	.00	.00	.00	.00	.00	.00	.90	2.0	.00	.66
8	.00	.00	.00	.00	.00	.00	.00	.00	2.0	2.0	.00	.57
9	.00	.00	.00	.00	.00	.00	.00	.00	4.0	1.9	.00	.48
10	.00	.00	.00	.00	.00	.00	.00	.00	10	1.5	.00	.57
11	.00	.00	.00	.00	.00	.00	.00	.00	16	1.1	.00	.66
12	.00	.00	.00	.00	.00	.00	.00	.00	16	.85	.00	.66
13	.00	.00	.00	.00	.00	.00	.00	.00	15	.57	.00	.57
14	.00	.00	.00	.00	.00	.00	.00	.00	11	.32	.00	.85
15	.00	.00	.00	.00	.00	.00	.00	.00	8.3	.08	.00	.76
16	.00	.00	.00	.00	.00	.00	.00	.00	4.2	.00	.00	.48
17	.00	.00	.00	.00	.00	.00	.00	.00	5.6	.00	.00	.40
18	.00	.00	.00	.00	.00	.00	.00	.00	6.2	.00	.00	.16
19	.00	.00	.00	.00	.00	.00	.00	.00	5.6	.00	.00	.10
20	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.00	.00	.30
21	.00	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00	.40
22	.00	.00	.00	.00	.00	.00	.00	.00	3.5	.00	.00	.20
23	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.10
24	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.20	4.0
26	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.00	.10	10
27	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.20	.60	5.0
28	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.10	.20	3.0
29	.00	.00	.00	.00	---	.00	.00	.00	3.3	.60	.10	2.0
30	.00	.00	.00	.00	---	.00	.00	.00	3.0	.40	.00	1.0
31	.00	---	.00	.00	---	.00	---	.00	---	.80	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	139.40	27.82	2.00	34.93
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	4.65	.90	.065	1.16
MAX	.00	.00	.00	.00	.00	.00	.00	.00	16	2.8	.60	10
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.000	.000	.000	.000	.000	.000	.000	.000	1.67	.32	.02	.42
IN.	.00	.00	.00	.00	.00	.00	.00	.00	1.86	.37	.03	.47
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	277	55	4.0	69

CAL YR 1977 TOTAL 185.52 MEAN .51 MAX 18 MIN .00 CFSM .18 IN 2.47 AC-FT 368
WTR YR 1978 TOTAL 204.35 MEAN .56 MAX 16 MIN .00 CFSM .20 IN 2.72 AC-FT 405

15798700 NUNAVAK CREEK NEAR BARROW--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73 and 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
JUN				
13...	1630	15	300	7.0
14...	1015	10	355	2.0
14...	1700	11	350	5.0
15...	0950	6.5	375	1.5
15...	1630	7.6	350	10.0
16...	0950	5.7	375	3.0
AUG				
31...	1430	.00	240	5.5

15896000 KUPARUK RIVER NEAR DEADHORSE
(National stream-quality accounting network station)

LOCATION.--Lat 70°16'54", long 148°57'35", in NE¼ sec.25, T.11 N., R.12 E., North Slope Borough, Hydrologic Unit 19010001, near right bank, 1.8 mi (2.9 km) northeast of SE Eileen State No. 1, 2.1 mi (3.4 km) south of Rivers Camp Service City, 10 mi (16 km) upstream from mouth on Gwyder Bay, and 13 mi (21 km) northwest of Deadhorse.

DRAINAGE AREA.--3,130 mi^2 (8,107 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by private engineering firm).

REMARKS.--Water-discharge records estimated for period of no gage-height record, Oct. 5 to June 7, fair otherwise. Winter low flow may be discontinuous as the flow probably varies significantly along the main stem of the river due to the formation of aufeis in the vicinity of springs. Flow may cease at other points.

AVERAGE DISCHARGE.--7 years, 1,292 ft^3/s (36.59 m^3/s), 5.61 in/yr (142 mm/yr), 936,100 acre-ft/yr (1.15 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118,000 ft^3/s (3,340 m^3/s) June 7, 1978, gage height, 37.6 ft (11.46 m), from range-line on recorder chart; no flow at times during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118,000 ft^3/s (3,340 m^3/s) June 7, gage height, 37.6 ft (11.46 m), from range-line on recorder chart; no flow Nov. 27 to June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2800	45	.00	.00	.00	.00	.00	.00	.0	1950	220	185
2	2530	40	.00	.00	.00	.00	.00	.00	.0	1580	215	205
3	2200	35	.00	.00	.00	.00	.00	.00	.0	1310	205	285
4	2060	30	.00	.00	.00	.00	.00	.00	.0	1130	200	300
5	1800	28	.00	.00	.00	.00	.00	.00	.0	948	200	290
6	1500	26	.00	.00	.00	.00	.00	.00	20000	852	200	280
7	1200	24	.00	.00	.00	.00	.00	.00	100000	792	200	275
8	1000	22	.00	.00	.00	.00	.00	.00	87000	700	190	265
9	800	20	.00	.00	.00	.00	.00	.00	70000	780	190	265
10	700	18	.00	.00	.00	.00	.00	.00	40000	876	190	260
11	600	16	.00	.00	.00	.00	.00	.00	22100	888	190	255
12	500	14	.00	.00	.00	.00	.00	.00	14900	816	190	255
13	450	12	.00	.00	.00	.00	.00	.00	12100	768	185	260
14	400	11	.00	.00	.00	.00	.00	.00	9800	700	175	270
15	350	10	.00	.00	.00	.00	.00	.00	8700	575	170	280
16	300	9.0	.00	.00	.00	.00	.00	.00	7800	490	162	275
17	280	8.0	.00	.00	.00	.00	.00	.00	7000	422	162	260
18	260	7.0	.00	.00	.00	.00	.00	.00	6220	380	162	250
19	240	6.0	.00	.00	.00	.00	.00	.00	5540	344	158	235
20	220	5.0	.00	.00	.00	.00	.00	.00	4780	320	154	250
21	200	4.0	.00	.00	.00	.00	.00	.00	4260	332	170	260
22	180	3.0	.00	.00	.00	.00	.00	.00	3740	326	185	255
23	160	2.0	.00	.00	.00	.00	.00	.00	3890	300	170	245
24	140	2.0	.00	.00	.00	.00	.00	.00	4220	280	154	235
25	120	1.0	.00	.00	.00	.00	.00	.00	4340	265	154	240
26	100	1.0	.00	.00	.00	.00	.00	.00	4300	260	162	240
27	90	.00	.00	.00	.00	.00	.00	.00	3890	260	158	230
28	80	.00	.00	.00	.00	.00	.00	.00	3410	255	166	220
29	70	.00	.00	.00	---	.00	.00	.00	2720	250	175	210
30	60	.00	.00	.00	---	.00	.00	.00	2200	240	175	200
31	50	---	.00	.00	---	.00	---	.00	---	225	175	---
TOTAL	21440	399.00	.00	.00	.00	.00	.00	.00	452910.0	19614	5562	7535
MEAN	692	13.3	.000	.000	.000	.000	.000	.000	15100	633	179	251
MAX	2800	45	.00	.00	.00	.00	.00	.00	100000	1950	220	300
MIN	50	.00	.00	.00	.00	.00	.00	.00	.00	225	154	185
CFSM	.22	.004	.000	.000	.000	.000	.000	.000	4.82	.20	.06	.08
IN.	.25	.00	.00	.00	.00	.00	.00	.00	5.38	.23	.07	.09
AC-FT	42530	791	.00	.00	.00	.00	.00	.00	898300	38900	11030	14950

CAL YR 1977 TOTAL 562120.00 MEAN 1540 MAX 60000 MIN .00 CFSM .49 IN 6.68 AC-FT 1115000
WTR YR 1978 TOTAL 507460.00 MEAN 1390 MAX 100000 MIN .00 CFSM .44 IN 6.03 AC-FT 1007000

15896000 KUPARUK RIVER NEAR DEADHORSE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1971, June to September 1972, July to September 1976, July to September 1978.

INSTRUMENTATION.--Temperature recorder operated occasionally since June 23, 1971.

REMARKS.--Temperature recorder started July 26. The river is frozen from October through May.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, 17.5°C July 31, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 17.5°C July 31; minimum, 0.0°C during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT										
04...	1500	2800	110	6.9	.5	1.0	--	K5	--	65
NOV										
17...	1300	8.0	200	6.9	.0	1.0	--	K1	K1	100
JUN										
08...	1700	82400	45	--	.5	30	--	K16	K4	18
JUL										
27...	1830	250	130	--	13.0	.20	11.3	--	--	69
AUG										
14...	1530	167	160	7.8	4.0	.50	12.5	K1	K1	84
SEP										
25...	1530	223	140	--	1.5	.50	13.6	K1	K1	70

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT										
04...	7	22	2.4	1.5	.3	70	0	3.0	1.3	.0
NOV										
17...	5	35	3.6	2.3	.4	116	0	3.4	1.7	.0
JUN										
08...	0	6.8	.3	.6	.7	22	0	4.3	1.5	.0
JUL										
27...	7	24	2.2	2.0	.4	--	--	3.3	1.1	.0
AUG										
14...	0	29	2.7	2.4	.4	104	0	2.7	1.2	.0
SEP										
25...	1	24	2.4	2.4	.5	--	--	4.1	1.1	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT									
04...	2.1	78	67	.06	.00	--	--	--	.39
NOV									
17...	2.7	135	106	.28	.04	--	--	--	.60
JUN									
08...	1.1	32	26	.09	.00	.75	.75	.12	.63
JUL									
27...	1.3	72	72	.06	.01	.17	.18	.00	.45
AUG									
14...	1.6	88	91	.09	.02	.25	.27	.02	.25
SEP									
25...	1.3	80	77	.07	.00	.35	.35	.00	.75

K NON-IDEAL COLONY COUNT

15896000 KUPARUK RIVER NEAR DEADHORSE--Continued

DATE	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
04...	--	.01	.01	9.7	--	1200	4	30	--
NOV									
17...	--	.00	.01	7.2	--	5	5	.11	--
JUN									
08...	.04	.07	.00	12	--	250	250	55600	39
JUL									
27...	.24	.00	.00	3.8	--	0	1	.67	--
AUG									
24...	.36	.01	.01	--	4.8	--	1	.45	--
SEP									
25...	.42	.00	.02	2.8	--	--	2	1.2	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
OCT										
04...	1500	0	0	0	0	0	0	<10	<10	0
JUN										
08...	1700	1	1	0	200	100	100	0	--	1
AUG										
14...	1530	0	0	0	300	200	60	1	0	2

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT										
04...	5	0	10	<50	<50	0	<10	<7	3	100
JUN										
08...	0	0	0	0	0	0	16	12	4	3700
AUG										
14...	0	0	10	0	0	<1	12	5	7	10

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)
OCT										
04...	--	90	<100	<99	1	20	10	8	.0	.0
JUN										
08...	3500	160	9	9	0	120	100	20	.0	.0
AUG										
14...	0	10	11	7	4	0	0	2	.0	.0

DATE	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
04...	.0	0	0	0	<10	<10	0	30	10	20
JUN										
08...	.0	0	0	0	0	0	0	80	60	20
AUG										
14...	.0	0	0	0	1	1	0	40	30	9

BEST DOCUMENT AVAILABLE

15896000 KUPARUK RIVER NEAR DEADHORSE--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE	OCT 4.77		NOV 17.77		JUN 8.78		JUL 27.78		AUG 14.78		SEP 25.78	
TIME	1500		1300		1700		1830		1530		1530	
TOTAL CELLS/ML	1200		5		250		0		120		50	
DIVERSITY: DIVISION	1.6		0.0		0.9		0.0		0.5		1.3	
.CLASS	1.6		0.0		0.9		0.0		0.5		1.3	
..ORDER	1.7		0.0		0.9		0.0		0.5		2.2	
...FAMILY	2.7		0.0		1.4		0.0		0.5		2.3	
....GENUS	3.3		0.0		1.4		0.0		0.5		2.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	10	1	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	--	-	3	2	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	2	4
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	20	2	--	-	--	-	--	-	--	-	--	-
...ZYGNEMATACEAE												
....MOUGEOTIA	81	7	--	-	--	-	--	-	--	-	--	-
....ZYGNEMA	220#	19	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	10	1	--	-	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	5	11
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	40	3	--	-	--	-	--	-	1	1	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	29	12	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	91	8	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	20	2	--	-	15	6	--	-	4	3	--	-
....SYNEDRA	71	6	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	15	6	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	120	10	--	-	15	6	--	-	--	-	7	14
...NITZSCHIACEAE												
....NITZSCHIA	30	3	--	-	--	-	--	-	--	-	2	4
...TABELLARIACEAE												
....TABELLARIA	40	3	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	5#	100	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	1	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	110#	92	14#	29
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	180#	15	--	-	180#	71	--	-	--	-	--	-
....APHANIZOMENON	230#	20	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	18#	36
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..GYMNODINIALES												
...GYMNODINIACEAE												
....GYMNODINIUM	--	-	--	-	--	-	--	-	--	-	2	4
..PERIDINIALES												
...PERIDINIACEAE												
....PERIDINIUM	10	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

15896000 KUPARUK RIVER NEAR DEADHORSE--Continued

TEMPERATURE (DEG. C) OF WATER, JULY TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	16.0	15.0	15.5	7.5	6.5	7.0
2				---	---	---	15.0	12.0	13.5	7.5	6.5	7.0
3				---	---	---	13.5	11.5	12.5	7.0	6.0	6.5
4				---	---	---	12.5	11.0	12.0	7.5	7.0	7.5
5				---	---	---	11.0	10.0	10.5	7.5	7.0	7.0
6				---	---	---	---	---	---	7.5	7.5	7.5
7				---	---	---	---	---	---	8.0	7.0	7.5
8				---	---	---	---	---	---	7.5	6.0	6.5
9				---	---	---	---	---	---	6.0	5.5	5.5
10				---	---	---	---	---	---	5.5	4.5	5.0
11				---	---	---	---	---	---	5.0	4.5	4.5
12				---	---	---	---	---	---	4.5	4.0	4.0
13				---	---	---	5.0	4.0	4.5	5.0	4.0	4.5
14				---	---	---	4.5	3.5	4.0	5.5	4.5	5.0
15				---	---	---	4.5	3.5	4.0	5.5	4.0	5.0
16				---	---	---	3.5	3.0	3.0	4.0	3.0	3.5
17				---	---	---	4.5	3.0	3.5	3.0	2.5	3.0
18				---	---	---	6.5	4.0	5.0	3.0	2.0	2.5
19				---	---	---	9.5	6.0	7.5	2.0	1.5	1.5
20				---	---	---	9.5	7.5	8.5	1.5	1.5	1.5
21				---	---	---	8.5	7.5	8.0	2.0	1.5	1.5
22				---	---	---	8.0	6.5	7.5	1.5	1.5	1.5
23				---	---	---	6.5	5.5	6.0	1.5	1.5	1.5
24				---	---	---	6.0	5.0	5.5	2.0	1.5	1.5
25				---	---	---	6.0	5.0	5.5	2.0	1.5	2.0
26				---	---	---	6.0	4.5	5.0	---	---	---
27				13.0	---	12.5	4.5	3.5	4.0	---	---	---
28				13.0	11.0	12.0	6.5	3.5	5.0	---	---	---
29				13.0	12.5	12.5	8.5	6.0	7.5	---	---	---
30				15.0	12.5	13.5	8.0	7.0	7.5	---	---	---
31				17.5	14.5	15.5	8.5	6.5	7.5	---	---	---
MONTH				17.5	11.0	13.0	16.0	3.0	7.0	8.0	1.5	4.5
YEAR	17.5											

15896700 PUTULIGAYUK RIVER NEAR DEADHORSE

LOCATION.--Lat 70°16'04", long 148°37'36", in NE¼ sec.32, T.11 N., R.14 E., North Slope Borough, Hydrologic Unit 19010001, at midchannel 200 ft (61 m) upstream from culvert causeway, 0.2 mi (0.3 km) downstream from unnamed tributary, 6.2 mi (10.0 km) northwest of Deadhorse, and 7.3 mi (11.7 km) upstream from mouth on Prudhoe Bay.

DRAINAGE AREA.--176 mi² (456 km²), approximately.

PERIOD OF RECORD.--May 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is at National Geodetic Vertical Datum of 1929 (levels by private engineering firm). Prior to June 4, 1972, on right bank 150 ft (46 m) downstream at same datum.

REMARKS.--Records estimated and poor for period of no gage-height record prior to June 11 and fair thereafter. Several observations of water temperature or specific conductance were made this year.

AVERAGE DISCHARGE.--8 years, 41.8 ft³/s (1.184 m³/s), 3.23 in/yr (82 mm/yr), 30,280 acre-ft/yr (37.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,980 ft³/s (141 m³/s) June 6, 1971, gage height, 24.50 ft (7.468 m), at site then in use; no flow during winter periods each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,630 ft³/s (131 m³/s) June 11, gage height, 21.43 ft (6.532 m); no flow Nov. 1 to June 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	.00	.00	.00	.00	.00	.00	.00	.00	74	1.4	1.6
2	30	.00	.00	.00	.00	.00	.00	.00	.00	61	1.4	1.6
3	40	.00	.00	.00	.00	.00	.00	.00	.00	51	1.4	1.5
4	50	.00	.00	.00	.00	.00	.00	.00	10	43	1.1	1.5
5	45	.00	.00	.00	.00	.00	.00	.00	30	37	1.0	1.5
6	40	.00	.00	.00	.00	.00	.00	.00	68	31	1.0	1.8
7	35	.00	.00	.00	.00	.00	.00	.00	180	26	1.0	2.4
8	30	.00	.00	.00	.00	.00	.00	.00	600	20	.88	2.6
9	25	.00	.00	.00	.00	.00	.00	.00	900	16	.78	3.0
10	20	.00	.00	.00	.00	.00	.00	.00	1800	14	.68	3.2
11	18	.00	.00	.00	.00	.00	.00	.00	4230	11	.60	3.2
12	16	.00	.00	.00	.00	.00	.00	.00	2900	9.7	.60	3.4
13	14	.00	.00	.00	.00	.00	.00	.00	2070	8.6	.60	3.7
14	12	.00	.00	.00	.00	.00	.00	.00	1510	7.6	.68	4.2
15	10	.00	.00	.00	.00	.00	.00	.00	1100	6.6	.60	4.0
16	9.0	.00	.00	.00	.00	.00	.00	.00	816	6.0	.60	4.0
17	8.0	.00	.00	.00	.00	.00	.00	.00	678	4.8	.68	3.7
18	7.0	.00	.00	.00	.00	.00	.00	.00	558	4.0	.78	3.7
19	6.0	.00	.00	.00	.00	.00	.00	.00	462	3.4	.88	3.4
20	5.0	.00	.00	.00	.00	.00	.00	.00	380	3.2	.88	3.7
21	4.0	.00	.00	.00	.00	.00	.00	.00	310	3.0	1.0	4.5
22	3.0	.00	.00	.00	.00	.00	.00	.00	257	2.8	1.4	4.0
23	3.0	.00	.00	.00	.00	.00	.00	.00	225	3.0	1.6	4.0
24	2.0	.00	.00	.00	.00	.00	.00	.00	190	2.8	1.5	4.5
25	2.0	.00	.00	.00	.00	.00	.00	.00	162	2.6	1.4	5.0
26	2.0	.00	.00	.00	.00	.00	.00	.00	149	2.2	1.5	5.0
27	2.0	.00	.00	.00	.00	.00	.00	.00	125	1.8	1.6	4.5
28	1.0	.00	.00	.00	.00	.00	.00	.00	105	1.6	1.8	4.0
29	1.0	.00	.00	.00	---	.00	.00	.00	92	1.5	2.0	3.5
30	1.0	.00	.00	.00	---	.00	.00	.00	80	1.5	1.8	3.0
31	1.0	---	.00	.00	---	.00	---	.00	---	1.4	1.5	---
TOTAL	467.0	.00	.00	.00	.00	.00	.00	.00	19987.00	462.1	34.64	99.7
MEAN	15.1	.000	.000	.000	.000	.000	.000	.000	666	14.9	1.12	3.32
MAX	50	.00	.00	.00	.00	.00	.00	.00	4230	74	2.0	5.0
MIN	1.0	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.60	1.5
CFSM	.09	.000	.000	.000	.000	.000	.000	.000	3.78	.09	.006	.02
IN.	.10	.00	.00	.00	.00	.00	.00	.00	4.22	.10	.01	.02
AC-FT	926	.00	.00	.00	.00	.00	.00	.00	39640	917	69	198

CAL YR 1977 TOTAL 13846.90 MEAN 37.9 MAX 1750 MIN .00 CFSM .22 IN 2.93 AC-FT 27470
WTR YR 1978 TOTAL 21050.44 MEAN 57.7 MAX 4230 MIN .00 CFSM .33 IN 4.45 AC-FT 41750

15904900 ATIGUN RIVER TRIBUTARY NEAR PUMP STATION 4

LOCATION.--Lat 68°22'25", long 149°18'48", in NE¼SE¼ sec.28, T.12 S., R.12 E., North Slope Borough, Hydrologic Unit 19010001, on right bank 0.2 mi (0.3 km) upstream from culvert on TAPS haul road, 0.9 mi (1.4 km) above mouth and 4 mi (6 km) south of Pump Station 4.

DRAINAGE AREA.--32.6 mi^2 (84.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,790 ft (850 m), from topographic map.

REMARKS.--Records estimated and poor during period of no gage-height record prior to June 4 and fair thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 530 ft^3/s (15.0 m^3/s) about June 5, 1977, gage height, 13.4 ft (4.08 m), from floodmarks, from rating curve extended above 260 ft^3/s (7.4 m^3/s) on basis of slope-area measurement at a gage height of 14.5 ft (4.42 m); no flow during winter periods.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 29-30, 1976 reached a stage of 14.5 ft (4.42 m), from floodmarks, discharge, 1,000 ft^3/s (28.3 m^3/s), from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 407 ft^3/s (11.5 m^3/s) July 4, gage height, 12.99 ft (3.959 m) from rating curve extended as explained above; no flow Oct. 16 to May 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	.00	.00	.00	.00	.00	.00	.00	80	150	106	115
2	3.5	.00	.00	.00	.00	.00	.00	.00	70	142	88	96
3	3.5	.00	.00	.00	.00	.00	.00	.00	60	212	86	84
4	3.0	.00	.00	.00	.00	.00	.00	.00	50	283	90	75
5	3.0	.00	.00	.00	.00	.00	.00	.00	46	255	130	72
6	2.5	.00	.00	.00	.00	.00	.00	.00	41	289	106	70
7	2.5	.00	.00	.00	.00	.00	.00	.00	35	236	80	56
8	2.0	.00	.00	.00	.00	.00	.00	.00	36	255	61	49
9	2.0	.00	.00	.00	.00	.00	.00	.00	41	228	55	41
10	1.5	.00	.00	.00	.00	.00	.00	.00	51	191	52	36
11	1.5	.00	.00	.00	.00	.00	.00	.00	138	200	48	31
12	1.0	.00	.00	.00	.00	.00	.00	.00	135	194	44	28
13	1.0	.00	.00	.00	.00	.00	.00	.00	96	166	42	26
14	.50	.00	.00	.00	.00	.00	.00	.00	92	142	36	24
15	.50	.00	.00	.00	.00	.00	.00	.00	96	106	32	22
16	.00	.00	.00	.00	.00	.00	.00	.00	91	78	28	20
17	.00	.00	.00	.00	.00	.00	.00	.00	110	63	28	18
18	.00	.00	.00	.00	.00	.00	.00	.00	120	61	28	17
19	.00	.00	.00	.00	.00	.00	.00	.00	96	72	31	16
20	.00	.00	.00	.00	.00	.00	.00	1.0	91	120	36	15
21	.00	.00	.00	.00	.00	.00	.00	2.0	56	96	39	14
22	.00	.00	.00	.00	.00	.00	.00	3.0	116	72	54	13
23	.00	.00	.00	.00	.00	.00	.00	4.0	154	65	76	12
24	.00	.00	.00	.00	.00	.00	.00	6.0	50	74	63	11
25	.00	.00	.00	.00	.00	.00	.00	8.0	28	71	59	10
26	.00	.00	.00	.00	.00	.00	.00	10	36	70	146	10
27	.00	.00	.00	.00	.00	.00	.00	15	68	71	226	9.0
28	.00	.00	.00	.00	.00	.00	.00	20	97	74	192	9.0
29	.00	.00	.00	.00	---	.00	.00	30	87	68	130	8.0
30	.00	.00	.00	.00	---	.00	.00	40	127	84	100	8.0
31	.00	---	.00	.00	---	.00	---	60	---	96	128	---
TOTAL	32.00	.00	.00	.00	.00	.00	.00	199.00	2394	4284	2420	1015.0
MEAN	1.03	.000	.000	.000	.000	.000	.000	6.42	79.8	138	78.1	33.8
MAX	4.0	.00	.00	.00	.00	.00	.00	60	154	289	226	115
MIN	.00	.00	.00	.00	.00	.00	.00	.00	28	61	28	8.0
CFSM	.03	.000	.000	.000	.000	.000	.000	.20	2.45	4.23	2.40	1.04
IN.	.04	.00	.00	.00	.00	.00	.00	.23	2.73	4.89	2.76	1.16
AC-FT	63	.00	.00	.00	.00	.00	.00	395	4750	8500	4800	2010

CAL YR 1977 TOTAL 12645.90 MEAN 34.6 MAX 480 MIN .00 CFSM 1.06 IN 14.43 AC-FT 25080
WTR YR 1978 TOTAL 10344.00 MEAN 28.3 MAX 289 MIN .00 CFSM .87 IN 11.80 AC-FT 20520

ARCTIC SLOPE ALASKA

15904900 ATIGUN RIVER TRIBUTARY NEAR PUMP STATION 4--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 and 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
AUG							
12...	1315	36	180	7.9	10.0	68	0

15910000 SAGAVANIRKTOK RIVER NEAR SAGWON

LOCATION.--Lat 69°05'24", long 148°45'34", North Slope Borough, Hydrologic Unit 19010001, on right bank 0.6 mi (1.0 km) downstream from Lupine River, 20 mi (32 km) south of Sagwon, and 33.5 mi (53.9 km) upstream from Ivishak River.

DRAINAGE AREA.--2,208 mi² (5,719 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,000 ft (305 m), from topographic map.

REMARKS.--Records estimated for period of no gage-height record prior to June 6 and fair thereafter. Winter low flow may be discontinuous as the flow probably varies significantly along the main stem of the river due to the formation of aufeis in the vicinity of springs. Flow may cease at other points.

AVERAGE DISCHARGE.--8 years, 1,656 ft³/s (46.90 m³/s), 10.19 in/yr (259 mm/yr), 1,200,000 acre-ft/yr (1.48 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,600 ft³/s (838 m³/s) June 5, 1977, gage height, 17.80 ft (5.425 m) from floodmarks, from rating curve extended above 8,200 ft³/s (230 m³/s) on the basis of slope-area measurement at a gage height of 18.4 ft (5.61 m); no flow Jan. 21 to May 7, 1977 and Jan. 16 to May 18, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1969 reached a stage of about 18.4 ft (5.61 m), from floodmarks, discharge 34,900 ft³/s (988 m³/s) from slope-area measurement of peak flow. Maximum evident flood discharge about 62,000 ft³/s (1,800 m³/s) from slope-area estimate.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,800 ft³/s (561 m³/s) about June 4, gage height, 16.25 ft (4.953 m), from floodmarks; from rating curve extended as explained above; no flow, Jan. 16 to May 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	220	100	20	.00	.00	.00	.00	6000	6740	2350	3900
2	900	210	90	20	.00	.00	.00	.00	9000	6860	2570	3400
3	800	210	90	20	.00	.00	.00	.00	12000	6440	2400	3040
4	700	200	90	15	.00	.00	.00	.00	18000	7880	2290	2800
5	640	200	80	15	.00	.00	.00	.00	15000	9480	2380	2700
6	580	190	80	15	.00	.00	.00	.00	12600	9720	2800	2750
7	540	190	80	15	.00	.00	.00	.00	10000	9160	2510	2750
8	500	180	70	10	.00	.00	.00	.00	7550	8450	2180	2570
9	480	180	70	10	.00	.00	.00	.00	6560	9160	1950	2360
10	460	170	70	10	.00	.00	.00	.00	4850	8540	1900	2230
11	440	170	60	10	.00	.00	.00	.00	5900	7820	1800	2120
12	420	160	60	5.0	.00	.00	.00	.00	8450	7100	1700	2000
13	400	160	60	5.0	.00	.00	.00	.00	7310	6440	1600	1920
14	380	150	50	5.0	.00	.00	.00	.00	6590	5480	1500	1800
15	360	150	50	5.0	.00	.00	.00	.00	5350	4600	1400	1800
16	340	150	50	.00	.00	.00	.00	.00	5990	3380	1300	1700
17	320	140	45	.00	.00	.00	.00	.00	5550	2840	1200	1700
18	300	140	45	.00	.00	.00	.00	.00	5960	2520	1200	1600
19	290	140	45	.00	.00	.00	.00	10	5520	2390	1200	1600
20	280	130	40	.00	.00	.00	.00	100	6140	2450	1300	1500
21	270	130	40	.00	.00	.00	.00	200	6260	3120	1500	1500
22	270	130	40	.00	.00	.00	.00	300	7400	2930	1950	1400
23	260	120	35	.00	.00	.00	.00	400	10300	2630	3250	1400
24	260	120	35	.00	.00	.00	.00	600	7670	2450	5100	1300
25	250	120	35	.00	.00	.00	.00	800	5100	2400	3200	1300
26	250	110	30	.00	.00	.00	.00	1000	4380	2390	2980	1200
27	240	110	30	.00	.00	.00	.00	1500	4780	2330	7850	1200
28	240	110	30	.00	.00	.00	.00	2000	5500	2260	7400	1100
29	230	100	25	.00	---	.00	.00	3000	5000	2200	5960	1100
30	230	100	25	.00	---	.00	.00	4000	4530	2120	4100	1000
31	220	---	25	.00	---	.00	---	5000	---	2190	3470	---
TOTAL	12850	4590	1675	180.00	.00	.00	.00	18910.00	225240	154470	84290	58740
MEAN	415	153	54.0	5.81	.000	.000	.000	610	7508	4983	2719	1958
MAX	1000	220	100	20	.00	.00	.00	5000	18000	9720	7850	3900
MIN	220	100	25	.00	.00	.00	.00	.00	4380	2120	1200	1000
CFSM	.19	.07	.02	.003	.000	.000	.000	.28	3.40	2.26	1.23	.89
IN.	.22	.08	.03	.00	.00	.00	.00	.32	3.79	2.60	1.42	.99
AC-FT	25490	9100	3320	357	.00	.00	.00	37510	446800	306400	167200	116500

CAL YR 1977 TOTAL 578025.00 MEAN 1584 MAX 22000 MIN .00 CFSM .72 IN 9.74 AC-FT 1147000
WTR YR 1978 TOTAL 560945.00 MEAN 1537 MAX 18000 MIN .00 CFSM .70 IN 9.45 AC-FT 1113000

15910000 SAGAVANIRKTOK RIVER NEAR SAGWON--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-72 and 1974 to 1977 (discontinued).

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 15,77
TIME	1400
TOTAL COUNT	279
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.3
...FAMILY	0.4
....GENUS	2.0
....GENUS-INSECTA	2.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.ARACHNIDA	
..ACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	1
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA	3
....CRICOTOPUS	121
....EUKIEFFERIELLA	3
....MICROPSECTRA	81
....TRISSOCLADIUS	56
....UNKNOWN GENUS #1	2
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	4
...SIPHLONURIDAE	
....PARAMELETUS	5
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	1
...PERLODIDAE	
....ISOPERLA	1
..TRICHOPTERA	
...LIMNEPHILIDAE	
....APATANIA	1
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited stream-flow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are useable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in Alaska made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of a stream. For some stations, measurements made periodically through the year are also included. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		South-central Alaska				
15238800	Fish Creek at Seldovia	Lat 59°26'10", long 151°42'05", in S½ sec.32, T.8 S., R.14 W., Kenai Peninsula Borough, upstream from dam, 0.1 mi upstream from mouth, and 0.5 mi southeast of Seldovia.	3.83	a1967-68, a1970, a1972-73, 1978	7-15-78 8-18-78 9-16-78	b3.6 b2.1 6.4
15238810	Seldovia Lagoon tributary near Seldovia	Lat 59°26'30", long 151°41'05", in SW¼ sec.33, T.8 S., R.14 W., Kenai Peninsula Borough, upstream from reservoir, 0.9 mi upstream from mouth and 1.2 mi east of Seldovia.	0.93	a1967-68, a1970, a1972-73, 1978	7-15-78 8-18-78 9-15-78	b0.42 b0.06 0.97
15239300	Falls Creek near Homer	Lat 59°47'23", long 151°07'14", in SE¼ NW¼ sec.35, T.4 S., R.11 W., Kenai Peninsula Borough, 500 ft downstream from unnamed left bank tributary, and 17 mi northeast of Homer.	2.84	1978	7-11-78 8-18-78 9-15-76	b2.2 b0.92 2.0
*15239500	Fritz Creek near Homer	Lat 59°42'30", long 151°20'35", in SW¼ sec.28, T.5 S., R.12 W., Kenai Peninsula Borough, at culvert on East Road and 9 mi northeast of Homer.	10.4	a1962-77, 1978	7-11-78 8-16-78 9-15-78	b6.1 b3.2 8.8
*15239800	Diamond Creek near Homer	Lat 59°40'10", long 151°40'00", in SE¼ sec.9, T.6 S., R.14 W., Kenai Peninsula Borough, at culvert on Sterling Highway 1.3 mi upstream from mouth at Cook Inlet and 4.6 mi northwest of Homer.	5.35	a1962-77, 1978	7-11-78 8-16-78 9-15-78	b3.2 b2.0 5.3
15239805	Anchor River near Homer	Lat 59°48'32", long 151°23'51", in NE¼ NE¼ sec.30, T.4 S., R.12 W., Kenai Peninsula Borough, 200 ft upstream from unnamed right bank tributary, and 12 mi north of Homer.	28.8	1978	7-14-78 8-17-78 9-14-78	b17 b15 32
15239807	Anchor River tributary at mouth near Homer	Lat 59°48'35", long 151°23'56", in SE¼ SE¼ sec.19, T.4 S., R.12 W., Kenai Peninsula Borough, 500 ft upstream from mouth, and 12 mi north of Homer.	20.1	1978	7-14-78 8-17-78 9-14-78	b19 b20 31
15239810	Anchor River above Beaver Creek near Homer	Lat 59°45'10", long 151°30'31", in SW¼ SW¼ sec.9, T.5 S., R.13 W., Kenai Peninsula Borough, 50 ft upstream from Beaver Creek, and 7.2 mi north of Homer.	63.2	1978	7-14-78 8-17-78 9-14-78	b52 b49 82
15239818	Beaver Creek near Bald Mountain near Homer	Lat 59°44'59", long 151°19'44", in NE¼ NW¼ sec.16, T.5 S., R.12 W., Kenai Peninsula Borough, at bridge and 10 mi northeast of Homer.	5.41	1978	7-13-78 8-18-78 9-15-78	b1.6 b1.2 6.6

* Also crest-stage partial-record station.
a Published in miscellaneous measurements table.
b Base flow.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		South-central Alaska--Continued				
15239822	Beaver Creek at mouth near Homer	Lat 59°45'09", long 151°30'29", in SW¼ SW¼ sec.9, T.5 S., R.13 W., Kenai Peninsula Borough, 200 ft upstream from mouth, and 7.2 mi north of Homer.	19.8	1978	7-14-78 8-17-78 9-14-78	b11 b9.5 23
15239840	Anchor River above Twitter Creek near Homer	Lat 59°43'08", long 151°38'31", in NE¼ NW¼ sec.27, T.5 S., R.14 W., Kenai Peninsula Borough, 30 ft upstream from Twitter Creek, and 6.3 mi northwest of Homer.	105	1978	7-11-78 8-16-78 9-13-78	b87 b63 227
15239845	Twitter Creek near Lookout Mountain near Homer	Lat 59°42'00", long 151°28'38", in NE¼ SW¼ sec.34, T.5 S., R.13 W., Kenai Peninsula Borough, 200 ft upstream from old road crossing, and 3.9 mi northeast of Homer.	1.63	1978	7-13-78 8-18-78 9-15-78	b1.7 b1.2 1.1
15239880	Twitter Creek near Homer	Lat 59°42'54", long 151°37'46", in SE¼ sec.27, T.5 S., R.14 W., Kenai Peninsula Borough, 0.6 mi upstream from mouth, and 5.7 mi northwest of Homer.	16.1	1971-73‡, 1978	7-11-78 8-16-78 9-13-78	b13 b7.9 19
15239970	North Fork Anchor River above Chakok River near Anchor Point	Lat 59°47'41", long 151°43'46", in SE¼ SW¼ sec.29, T.4 S., R.14 W., Kenai Peninsula Borough, 20 ft downstream from bridge, 0.4 mi upstream from Chakok River, and 3.8 mi east of Anchor Point.	18.4	1978	7-12-78 8-16-78 9-13-78	b14 b11 23
15239980	Chakok River near Anchor Point	Lat 59°48'03", long 151°43'51", in NW¼ SW¼ sec.29, T.4 S., R.14 W., Kenai Peninsula Borough, 0.5 mi upstream from mouth, and 3.9 mi northeast of Anchor Point.	38.7	1978	7-12-78 8-16-78 9-13-78	b20 b14 33
15239990	North Fork Anchor River at mouth at Anchor Point	Lat 59°46'24", long 151°49'52", in SE¼ NE¼ sec.4, T.5 S., R.15 W., Kenai Peninsula Borough, 50 ft upstream from mouth at Anchor Point.	65.7	a1951-52, 1978	7-11-78 8-16-78 9-13-78	b40 b28 62
#15240000	Anchor River at Anchor Point	Lat 59°46'21", long 151°50'05", in SE¼ sec.4, T.5 S., R.15 W., Kenai Peninsula Borough, at Old Sterling Highway bridge at Anchor Point, 0.1 mi downstream from North Fork, and 1 mi upstream from mouth.	224 (revised)	1953-66‡, 1978	7-11-78 8-16-78 9-13-78	b155 b111 326
15240200	Stariski Creek near Ninilchik	Lat 59°55'07", long 151°38'59", in SW¼ NW¼ sec.14, T.3 S., R.14 W., Kenai Peninsula Borough, 50 ft downstream from unnamed right bank tributary, and 8.8 mi south of Ninilchik.	27.8	1978	7-14-78 8-17-78 9-14-78	b16 b18 22
#15240300	Stariski Creek near Anchor Point	Lat 59°51'09", long 151°47'17", in NW¼ NW¼ sec.12, T.4 S., R.15 W., Kenai Peninsula Borough, 100 ft downstream from culvert at Sterling Highway, and 5.5 mi north of Anchor Point.	49.4	a1951-52, 1978	7-12-78 8-16-78 9-13-78	b27 b22 40
15240400	Happy Creek at Happy Valley	Lat 59°56'16", long 151°44'06", in NW¼ NW¼ sec.8, T.3 S., R.14 W., Kenai Peninsula Borough, 20 ft upstream from culvert at Sterling Highway at Happy Valley and 0.4 mi upstream from mouth.	7.74	1978	7-12-78 8-15-78 9-13-78	b5.9 b3.8 6.7
15240600	Deep Creek above tributary 1 near Ninilchik	Lat 59°56'31", long 151°12'59", in SW¼ SW¼ sec.5, T.3 S., R.11 W., Kenai Peninsula Borough, 300 ft upstream from unnamed left bank tributary, 0.7 mi upstream from Cytex Creek, and 17 mi southeast of Ninilchik.	18.9	1978	7-14-78 8-17-78 9-14-78	b9.5 b7.5 30
15240700	Deep Creek tributary 1 at mouth near Ninilchik	Lat 59°56'30", long 151°13'03", in SW¼ SW¼ sec.5, T.3 S., R.11 W., Kenai Peninsula Borough, 200 ft upstream from mouth, and 17 mi southeast of Ninilchik.	16.0	1978	7-14-78 8-17-78 9-14-78	b7.5 b6.5 25

‡ Operated as a continuous-record station.
# Sample analyses in section on Water-quality data collected at miscellaneous sites.
a Published in miscellaneous measurements table.
b Base flow.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		South-central Alaska--Continued				
15240800	Deep Creek above North Fork near Ninilchik	Lat 59°58'56", long 151°14'48", in SW¼ SW¼ sec.19, T.2 S., R.11 W., Kenai Peninsula Borough, 200 ft upstream from North Fork, and 15 mi east of Ninilchik.	58.5	1978	7-14-78 8-17-78 9-14-78	b35 b32 86
15240900	North Fork Deep Creek at mouth near Ninilchik	Lat 59°58'59", long 151°14'52", in SW¼ SW¼ sec.19, T.2 S., R.11 W., Kenai Peninsula Borough, 500 ft upstream from mouth, and 15 mi east of Ninilchik.	38.9	1978	7-14-78 8-17-78 9-14-78	b37 b37 48
15241000	Deep Creek above South Fork near Ninilchik	Lat 59°57'52", long 151°29'22", in SW¼ NE¼ sec.34, T.2 S., R.13 W., Kenai Peninsula Borough, 50 ft upstream from South Fork, and 8.5 mi southeast of Ninilchik.	119	1978	7-14-78 8-17-78 9-14-78	b96 b95 172
15241100	South Fork Deep Creek at mouth near Ninilchik	Lat 59°57'47", long 151°29'20", in SW¼ NE¼ sec.34, T.2 S., R.13 W., Kenai Peninsula Borough, 0.2 mi upstream from mouth, and 8.5 mi southeast of Ninilchik.	29.4	1978	7-14-78 8-17-78 9-14-78	b18 b16 24
15241200	Deep Creek above tributary 2 near Ninilchik	Lat 60°00'22", long 151°37'26", in SE¼ NE¼ sec.14, T.2 S., R.14 W., Kenai Peninsula Borough, 400 ft upstream from unnamed right bank tributary, and 3.2 mi southeast of Ninilchik.	161	1978	7-12-78 8-17-78 9-14-78	b131 b115 225
15241300	Deep Creek tributary 2 at mouth near Ninilchik	Lat 60°00'26", long 151°37'23", in SE¼ NE¼ sec.14, T.2 S., R.14 W., Kenai Peninsula Borough, 100 ft upstream from mouth, and 3.2 mi southeast of Ninilchik.	35.6	1978	7-12-78 8-17-78 9-14-78	b18 b15 23
15241400	Clam Creek near Ninilchik	Lat 60°00'39", long 151°39'22", in NE¼ NE¼ sec.15, T.2 S., R.14 W., Kenai Peninsula Borough, 0.6 mi upstream from mouth, and 2.6 mi south of Ninilchik.	20.0	1978	7-12-78 8-15-78 9-13-78	b12 b7.2 22
#15241500	Deep Creek near Ninilchik	Lat 60°01'50", long 151°40'50", on line between sec.3 and 4, T.2 S., R.14 W., Kenai Peninsula Borough, at bridge on Sterling Highway, 1 mi upstream from mouth, and 1.5 mi southwest of Ninilchik.	220	a1951-52, a1954, a1959-61, a1965-68, 1978	7-12-78 8-15-78 9-13-78	b157 b125 370
15241510	Ninilchik River above tributary 1 near Clam Gulch	Lat 60°09'55", long 151°19'09", in SE¼ NW¼ sec.23, T.1 N., R.12 W., Kenai Peninsula Borough, 50 ft upstream from unnamed right bank tributary, and 5.2 mi southeast of Clam Gulch.	19.5	1978	7-14-78 8-17-78 9-14-78	b9.2 b8.6 12
15241520	Ninilchik River tributary 1 at mouth near Clam Gulch	Lat 60°09'56", long 151°19'09", in SE¼ NW¼ sec.23, T.1 N., R.12 W., Kenai Peninsula Borough, 40 ft upstream from mouth, and 5.2 mi southeast of Clam Gulch.	7.58	1978	7-14-78 8-17-78 9-14-78	b2.9 b3.2 5.4
15241530	Ninilchik River above tributary 2 near Ninilchik	Lat 60°06'25", long 151°28'56", in SE¼ NE¼ sec.10, T.1 S., R.13 W., Kenai Peninsula Borough, 10 ft upstream from unnamed right bank tributary, and 7.5 mi northeast of Ninilchik.	46.2	1978	7-19-78 8-17-78 9-14-78	b23 b25 39
15241540	Ninilchik River tributary 2 at mouth near Ninilchik	Lat 60°06'26", long 151°28'57", in SE¼ NE¼ sec.10, T.1 S., R.13 W., Kenai Peninsula Borough, 10 ft upstream from mouth, and 7.5 mi northeast of Ninilchik.	6.08	1978	7-19-78 8-17-78 9-14-78	b2.4 b1.9 3.9
15241550	Ninilchik River above tributary 3 near Ninilchik	Lat 60°03'24", long 151°32'53", in SW¼ SE¼ sec.29, T.1 S., R.13 W., Kenai Peninsula Borough, 300 ft upstream from unnamed left bank tributary, and 4.0 mi east of Ninilchik.	39.2	1978	7-14-78 8-17-78 9-14-78	b33 b32 46

Sample analyses in section on Water-quality data collected at miscellaneous sites.
a Published in miscellaneous measurements table.
b Base flow.

BEST DOCUMENT AVAILABLE

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

					Measurements	
Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Discharge (ft^3/s)
South-central Alaska--Continued						
15241570	Ninilchik River tributary 3 near Ninilchik	Lat 60°05'27", long 151°19'44", in SW¼ NW¼ sec.15, T.1 S., R.12 W., Kenai Peninsula Borough, 100 ft downstream from unnamed right bank tributary, and 12 mi east of Ninilchik.	22.7	1978	7-14-78 8-17-78 9-14-78	b4.9 b5.3 7.7
15241590	Ninilchik River tributary 3 at mouth near Ninilchik	Lat 60°03'26", long 151°32'48", in SW¼ SE¼ sec.29, T.1 S., R.13 W., Kenai Peninsula Borough, 300 ft upstream from mouth, and 4.0 mi east of Ninilchik.	56.8	1978	7-14-78 8-17-78 9-14-78	b26 b26 33
15242080	Crooked Creek near Clam Gulch	Lat 60°08'16", long 151°10'30", in SE¼ NW¼ sec.34, T.1 N., R.11 W., Kenai Peninsula Borough, 500 ft downstream from unnamed left bank tributary, and 9.8 mi southeast of Clam Gulch.	21.9	1978	7-14-78 8-17-78 9-14-78	b19 b20 25
#15242100	Crooked Creek near Kasilof	Lat 60°17'50", long 151°16'20", in NE¼ sec.1, T.2 N., R.12 W., Kenai Peninsula Borough, 50 ft downstream from culvert at Old Sterling Highway, 1.8 mi upstream from mouth, and 6.5 mi southeast of Kasilof.	53.8	a1951-52, a1973-77, 1978	7-10-78 8-15-78 9-13-78	b32 b33 58
*15285000	Wasilla Creek near Palmer	Lat 61°38'47", long 149°11'45", in SW¼ sec.13, T.18 N., R.1 E., Matanuska-Susitna Borough, 60 ft upstream from culvert entrance on Wasilla Fishhook Road and 4.1 mi northeast of Palmer.	16.6	a1954-55, a1976-77, 1978	3-16-78 7-31-78 8-22-78	b3.0 b19 b10
*15285200	Wasilla Creek near Wasilla	Lat 61°34'09", long 149°18'50", in NE¼ NW¼ sec.17, T.17 N., R.1 E., Matanuska-Susitna Borough, 100 ft downstream from bridge at Parks Highway and 4.2 mi east of Wasilla.	39.5	a1947-49, a1955, 1978	3-16-78 5-16-78 6-24-78 7-31-78 8-22-78 9-20-78	b4.2 15 29 b24 b14 15
*15290100	Little Susitna River near Houston	Lat 61°37'36", long 149°48'03", in NE¼ NW¼ sec.27, T.18 N., R.3 W., Matanuska-Susitna Borough, 500 ft downstream from bridge at Parks Highway and 1.6 mi east of Houston.	168	1978	3-15-78 5-19-78 7- 6-78 7-31-78 8-22-78 9-20-78	b47 226 496 480 377 b208
#*15290200	Nancy Lake tributary near Willow	Lat 61°41'17", long 149°57'58", in SE¼SE¼ sec.34, T.19 N., R.4 W., Matanuska-Susitna Borough, 10 ft upstream from culvert at Parks Highway, 0.3 mi upstream from mouth, and 4.5 mi southeast of Willow.	8.00	1978	3-15-78 6-29-78 7-31-78 8-22-78 9-20-78	b0.27 14 b3.2 b0.85 2.0
*15293700	Little Willow Creek near Kashwitna	Lat 61°48'37", long 150°05'42", in SW¼ NE¼ sec.24, T.20 N., R.5 W., Matanuska-Susitna Borough, 100 ft downstream from bridge at Parks Highway, 0.4 mi downstream from Rogers Creek, and 3.7 mi south of Kashwitna.	155	1978	3-15-78 5-19-78 7- 6-78 8- 1-78 8-23-78 9-21-78	b64 281 343 b258 b158 229
15294002	Willow Creek at Hatcher Pass Road near Willow	Lat 61°45'49", long 149°40'54", in NE¼ SW¼ sec.5, T.19 N., R.2 W., Matanuska-Susitna Borough, 0.2 mi downstream from old bridge crossing, 2.5 mi upstream from Peters Creek, and 12 mi east of Willow.	50.1	1978	3-14-78 4-25-78 8- 1-78 8-23-78	b12 20 b159 b98
15294007	Deception Creek above tributary near Houston	Lat 61°41'48", long 149°46'19", in SE¼ NW¼ sec.35, T.19 N., R.3 W., Matanuska-Susitna Borough, 0.2 mi upstream from unnamed left bank tributary and 4.8 mi northeast of Houston.	17.9	1978	3-14-78 8-14-78 8-30-78	b3.1 19 b6.6
15294008	Deception Creek tributary near Houston	Lat 61°41'40", long 149°46'21", in SE¼ NW¼ sec.35, T.19 N., R.3 W., Matanuska-Susitna Borough, 0.1 mi upstream from mouth and 4.7 mi northeast of Houston.	8.89	1978	8-30-78	b3.6

* Also crest-stage partial-record station.
# Sample analyses in section on Water-quality data collected at miscellaneous sites.
a Published in miscellaneous measurements table.
b Base flow.

BEST DOCUMENT AVAILABLE

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		South-central Alaska--Continued				
15294012	Willow Creek at Parks Highway near Willow	Lat 61°46'03", long 150°03'48", in SW¼ NE¼ sec.6, T.19 N., R.4 W., Matanuska-Susitna Borough, at bridge at Parks Highway, 0.9 mi downstream from Deception Creek, and 1.7 mi northwest of Willow.	233	1978	3-15-78 8- 1-78 8-23-78	b67 b523 b321
15294020	Kroto Creek (head of Deshka River) near Peters Creek	Lat 62°20'55", long 150°37'13", in NW¼ NW¼ sec.17, T.26 N., R.7 W., Matanuska-Susitna Borough, at bridge at Petersville Road, and 3.9 mi southeast of Peters Creek.	21.0	1978	3-13-78 8-22-78	b6.1 20
*15294025	Moose Creek near Talkeetna	Lat 62°19'00", long 150°26'30", in NE¼ sec.30, T.26 N., R.7 W., Matanuska-Susitna Borough, at bridge on Petersville Road and 10.5 mi west of Talkeetna.	52.3	a1972-77, 1978	3-13-78 5- 5-78 7-10-78 8-22-78	b4.0 266 58 31
• ---	Peters Creek near Petersville	Lat 62°31'57", long 150°48'27", in NE¼ sec.7, T.28 N., R.8 W., Matanuska-Susitna Borough, 0.1 mi downstream from Pioneer Gulch and 3 mi northwest of Petersville.	25.4	a1975-76, 1977-78	10- 7-77 7-31-78	b97 b66
•15294310	Peters Creek above Martin Creek at Peters Creek	Lat 62°23'00", long 150°43'31", in SE¼ sec.34, T.27 N., R.8 W., Matanuska-Susitna Borough, 0.7 mi upstream from Martin Creek and 0.7 mi northeast of Peters Creek.	53.1	a1975-76, 1977-78	10- 7-77 3-13-78 8- 1-78 8-23-78	b167 b21 b102 171
15294312	Martin Creek at Peters Creek	Lat 62°22'41", long 150°44'19", in NE¼ NW¼ sec.3, T.26 N., R.8 W., Matanuska-Susitna Borough, at mouth and 0.3 mi northwest of Peters Creek.	44.3	1978	3-13-78 8- 1-78 8-23-78	b20 b75 80
• ---	Capps Creek near Tyonek	Lat 61°19'46", long 151°37'26", in SW¼ sec.4, T.14 N., R.13 W., Kenai Peninsula Borough, 0.5 mi upstream from mouth and 24 mi northwest of Tyonek.	11.8	a1975-76, 1977-78	10-18-77 12-13-77 2-16-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 8-24-78 9-12-78 10-16-78	28 b6.7 b6.8 b6.8 50 89 39 b16 b12 63 b31
• ---	Bishop Creek near Tyonek	Lat 61°18'23", long 151°30'27", in NW¼ sec.18, T.14 N., R.12 W., Kenai Peninsula Borough, 3 mi west of Bishop Lake and 21 mi northwest of Tyonek.	10.9	a1975-76, 1977-78	10-18-77 12-13-77 2-16-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 9-12-78 10-16-78	19 b2.2 b3.5 b4.4 131 28 27 b9.5 28 b24
• ---	Chuitna River below Wolverine Fork near Tyonek	Lat 61°11'52", long 151°39'20", in SW¼ sec.20, T.13 N., R.13 W., Kenai Peninsula Borough, 0.2 mi downstream from Wolverine Fork and 20 mi northwest of Tyonek.	19.5	a1975-76, 1977-78	12-13-77 2-15-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 9-12-78 10-16-78	b17 b19 b17 140 105 73 b32 135 b55
• ---	Chuitna River above Chuit Creek near Tyonek	Lat 61°09'16", long 151°30'11", in SW¼ sec.1, T.12 N., R.13 W., Kenai Peninsula Borough, 200 ft upstream from Chuit Creek and 13 mi northwest of Tyonek.	37.3	a1976, 1977-78	10-18-77 12- 8-77 2-15-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 9-12-78 10-16-78	36 b26 b25 b25 252 182 136 b55 138 b81

* Also crest-stage partial-record station.
• Sample analyses in section on Water-quality partial-record stations.
a Published in miscellaneous measurements table.
b Base flow.

BEST DOCUMENT AVAILABLE

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		South-central Alaska--Continued				
* ---	Chuit Creek 5.4 miles above mouth near Tyonek	Lat 61°12'44", long 151°33'54", in SW¼ sec.14, T.13 N., R.13 W., Kenai Peninsula Borough, 5.4 mi upstream from mouth and 17 mi northwest of Tyonek.	9.80	a1975-76, 1977-78	10-18-77 12-13-77 2-16-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 9-12-78 10-16-78	21 b7.0 b6.8 b5.3 72 34 29 b14 48 b23
* ---	Chuit Creek at mouth near Tyonek	Lat 61°09'18", long 151°30'11", in SW¼ sec.1, T.12 N., R.13 W., Kenai Peninsula Borough, 200 ft upstream from mouth and 13 mi northwest of Tyonek.	23.0	a1976, 1977-78	10-18-77 12- 8-77 2-15-78 3-30-78 5-11-78 6-20-78 7-17-78 8-14-78 9-12-78 10-16-78	21 b13 b11 b8.6 189 79 68 b27 33 b45
		Yukon Alaska				
15511100	Hopper Creek near Fairbanks	Lat 64°53'33", long 147°24'42", Fairbanks North-Star Borough, in NE¼NE¼ sec.30, T.1 N., R.2 E., at downstream end of culvert on Chena Hot Springs Road, 2.5 mi upstream from mouth, and 9.5 mi northeast of Fairbanks.	2.25	1978	8- 1-78 9- 1-78	b0.0007 b0.04
15511500	Steele Creek near Fairbanks	Lat 64°53'36", long 147°29'12", in SE¼ sec.23, T.1 N., R.1 E., Fairbanks North-Star Borough, 8 ft upstream from culvert at mi 4.5 on the Chena Hot Springs Highway, and 7.5 mi northeast of Fairbanks.	10.7	ac1967-74, 1976-78	7-31-78 8-31-78	b1.27 b0.90
15512500	Columbia Creek near Fairbanks	Lat 64°53'29", long 147°32'39", in SW¼ NE¼NE¼E¼ sec.28, T.1 N., R.1 E., Fairbanks North-Star Borough, at downstream end of culvert at mi 2.6 on Chena Hot Springs Road, 1.0 mi upstream from Wigwam Creek and 6.1 mi northeast of Fairbanks.	d3.0	1976-78	7-31-78 8-31-78	b0.10 b.09
15514005	Isabella Creek near Fairbanks	Lat 64°53'10", long 147°40'30", in NE¼ NE¼SE¼ sec.26, T.1 N., R.1 W., Fairbanks North-Star Borough, at downstream end of culvert at mi 1.0 on Farmers Loop Road, 2.8 mi upstream fromrom mouth and 3.1 mi north of Fairbanks.	de4.3	1976-78	7-31-78 8-31-78	b0.11 b.09
15514010	Jussila Creek near Fairbanks	Lat 64°53'59", long 147°42'59", in NE¼ NW¼SE¼ sec.22, T.1 N., R.1 W., Fairbanks North-Star Borough, at downstream end of culvert at mi 3.4 on Farmers Loop Road, 0.5 mi upstream from Creamers Field and 3.9 mi north of Fairbanks.	de1.6	1976-78	7-12-78 7-31-78 8-31-78	b0.02 b.02 b.05
15514015	Grenac Creek near Fairbanks	Lat 64°53'52", long 147°45'13", in SE¼ NW¼SE¼ sec.21, T.1 N., R.1 W., Fairbanks North-Star Borough, at downstream end of culvert at mi 4.6 on Farmers Loop Road, 1.0 mi upstream from Creamers Field and 3.9 mi north of Fairbanks.	de1.3	a1967-68, 1976-78	7-31-78 8-31-78	b0.04 b.03
15514025	Eva Creek near Ester	Lat 64°50'47", long 147°59'34", in SW¼ NW¼NE¼ sec.8, T.1 S., R.2 W., Fairbanks North-Star Borough, 20 ft downstream from culvert on Parks Highway, 0.1 mi upstream from mouth, and 0.7 mi east of Ester.	d1.3	1978	7-31-78	b0.03

* Sample analyses in section on Water-quality partial-record stations.
a Published in miscellaneous measurements table.
b Base flow.
c Operated as a crest-stage partial-record station.
d Approximately.
e Revised.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Yukon Alaska--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
15514030	Saint Patrick Creek near Ester	Lat 64°52'23", long 147"58'58", in NE¼ SE¼NE¼ sec.32, T.1 N., R.2 W., Fairbanks North-Star Borough, at downstream end of culvert on Henderson Road, 2.3 mi upstream from mouth, and 2.1 mi north of Ester.	d0.3	1978	7-31-78 8-31-78	No flow No flow
15514040	Happy Creek near College	Lat 64°51'47", long 147°52'22", in NW¼ NW¼NW¼ sec.1, T.1 S., R.2 W., Fairbanks North-Star Borough, 20 ft upstream from culvert on Parks Highway, at Ester crossing, 0.6 mi upstream from mouth and 2 mi west of College.	d8.6	1978	7-31-78 8-30-78	b0.17 b.10
+ ---	Healy Creek near Usibelli	Lat 63°53'08", long 148°38'20", in NE¼ SW¼ sec.12, T.12 S., R.6 W., 1.3 mi upstream from Coal Creek and 4.6 mi northeast of Usibelli.	58.8	a1976, 1977-78	11- 1-77 9- 7-78	b60 87
+ ---	Coal Creek near Usibelli	Lat 63°52'47", long 148°40'37", in NW¼ NE¼ sec.14, T.12 S., R.6 W., at mouth and 3.4 mi northeast of Usibelli.	18.1	a1975-76, 1977-78	11- 1-77 5-11-78 9- 6-78	b10 38 20
+ ---	Cripple Creek near Usibelli	Lat 63°52'45", long 148°44'06", in NW¼ NE¼ sec.16, T.12 S., R.6 W., at bridge at mouth and 1.8 mi northeast of Usibelli.	7.33	a1975-76, 1977-78	11- 1-77 5-11-78 9- 6-78	b2.8 18 6.9
+ ---	Healy Creek at Suntrana	Lat 63°51'10", long 148°50'37", in NW¼ NW¼ sec.25, T.12 S., R.7 W., at Suntrana and 3.2 mi upstream from mouth.	107	a1975-76, 1977-78	11- 1-77 9- 6-78	74 133
+ ---	Lignite Creek near Healy	Lat 63°54'26", long 148°58'17", in SE¼ NE¼ sec.6, T.12 S., R.7 W., 0.5 mi upstream from mouth and 1.1 mi east of Lignite.	48.6	a1976, 1977-78	10-31-77 9- 7-78	16 21
15540015	Goldstream Creek near Fox	Lat 64°56'52", long 147°10'21", in SW¼ NW¼NW¼ sec.1, T.1 N., R.1 W., Fairbanks North-Star Borough, 30 ft upstream from bridge on Goldstream Road, 0 6 mi upstream from Engineer Creek and 2 mi southwest of Fox.	41.4	1978	8- 1-78 8-30-78	b6.9 b9.2
15540020	Engineer Creek near Fox	Lat 64°55'28", long 147°35'21", in NE¼ SW¼SE¼ sec.8, T.1 N., R.1 E., Fairbanks North-Star Borough, 2.5 mi south of Fox, 3.5 mi upstream from mouth.	2.40	1978	7-31-78 8-31-78	No flow No flow
15540030	Big Eldorado Creek near College	Lat 64°56'43", long 147°47'49", in NE¼ SE¼NW¼ sec.5, T.1 N., R.1 W., Fairbanks North-Star Borough, at downstream end of culvert on Goldstream Road, 3 mi upstream from mouth and 6 mi north of College.	7.98	1978	8- 1-78 8-30-78	b0.63 b.69
15540035	O'Conner Creek near College	Lat 64°54'57", long 147°53'49", in SE¼ SE¼NW¼ sec.14, T.1 N., R.2 W., Fairbanks North-Star Borough, at bridge onGoldstream Road, 1.8 mi upstream from mouth, and 5 mi northwest of College.	12.4	a1967, 1978	8- 1-78 8-30-78	b0.80 b.91
15540040	Goldstream Creek near College	Lat 64°54'36", long 147°56'47", in T.1 N., R.2 W., Fairbanks North-Star Borough, 100 ft downstream from bridge on Sheep Creek Road, 1.6 mi northwest of Happy, and 5.5 mi northwest of College.	96.7	a1967, 1978	8-30-78	b6.2
15540045	Moose Creek near Happy	Lat 64°55'30", long 147°59'10", in NW¼ SE¼SE¼ sec.8, T.1 N., R.2 W., Fairbanks North-Star Borough, 20 ft upstream from bridge on Murphy Dome Road, 1 mi upstream from mouth, and 3 mi northwest of Happy.	10.6	a1967, 1978	7-11-78 7-31-78 8-30-78	b0.91 b.56 b.81

+ Sample analyses in section on Water-quality partial-record stations.
a Published in miscellaneous measurements table.
d Approximatley.

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Southeast Alaska					
15054500	Bessie Creek near Auke Bay	*Lat 58°35'30", long 134°54'00", in SE¼ sec.7, T.38 S., R.63 E., Juneau Borough, 1000 ft upstream from mouth of Yankee Cove on eastern shore of Lynn Canal, and 16.5 mi northwest of Auke Bay.	1.35	1966-78	6- 1-78	g11.95	127
15057500	William Henry Creek near Auke Bay	Lat 58°44'46", long 135°14'25", about 600 ft upstream from mouth on western shore of Lynn Canal about 2 mi north of entrance to William Henry Bay, and 33 mi northwest of Auke Bay.	1.58	1966-78	7- 3-78	a	a
15081490	Yatuk Creek near Klawock	Lat 55°53'57", long 133°08'42", on Prince of Wales Island, in Tongass National Forest, 0.4 mi upstream from mouth of Naukati Bay, and 24 mi north of Klawock.	5.80	1971-78	*7- -71 11-18-71 *10-24-72 12-10-73 10- 8-74 9- 9-76 11- 3-76 9-20-78	g16.74 g18.09 g18.87 g17.61 g18.72 g17.94 g17.17 g18.67	*280 *641 *901 *499 *848 *595 *382 830
15081890	Natzuhini Creek near Hydaburg	Lat 55°17'18", long 132°49'18", in NE¼NE¼ sec.17, T.76 S., R.83 E., on Prince of Wales Island, in Tongass National Forest, 0.7 mi upstream from mouth of Natzuhini Bay, and 5.5 mi north of Hydaburg.	9.10	1971-78	9-20-78	20.86	1,080
15086900	Red Creek near Point Baker	Lat 56°15'36", long 133°19'34", on Prince of Wales Island, in Tongass National Forest, 0.2 mi upstream from Red Bay tideflats, and 13 mi southeast of Point Baker.	11.2	1971-78	10-11-77	18.47	1,090
15087350	Twin Creek near Petersburg	Lat 56°43'13", long 132°55'33", in NE¼NW¼ sec.35, T.59 S., R.79 E., on Mitkof Island, at Mitkof highway bridge 600 ft upstream from mouth of Wrangell Narrows and 6.5 mi south of Petersburg.	3.01	1966-78	10-15-77	a	a
15087585	Twelvemile Creek near Petersburg	Lat 56°58'07", long 133°04'05", in NW¼SE¼ sec.31, T.56 S., R.77 E., on Kupreanof Island, in Tongass National Forest, 0.8 mi upstream from mouth at Fredrick Sound, and 10 mi northwest of Petersburg.	9.39	1972-78	10-15-77	a	a
15087595	Kadake Creek near Kake	Lat 56°46'45", long 134°00'42", in W½ SW¼ sec.1, T.59 S., R.72 E., on Kuiu Island, in Tongass National Forest, 1.5 mi upstream from mouth at Kadake Bay and 15 mi south of Kake.	43.6	1972-78	10-17-77	a	a
15101600	Wheeler Creek near Douglas	Lat 58°01'49", long 134°46'08", in SE¼NE¼ sec.27, T.44 S., R.65 E., on Admiralty Island, in Tongass National Forest, on left bank 2.4 mi upstream from mouth at Game Cove in Chatham Strait and 22 mi southwest of Douglas.	57.1	1971-78	10-17-77	a	a
15101800	Fishery Creek near Angoon	Lat 57°45'45", long 134°42'21", on Admiralty Island, in Tongass National Forest, approximately 0.5 mi upstream from mouth and 19 mi northwest of Angoon.	54.3	1971-78	a	b31.45	a

* Revised.
a Unknown.
b Ice effect.
g At different site.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		Southeast Alaska--Continued					
15102350	North Arm Creek near Angoon	Lat 57°23'48", long 134°19'24", in SE¼NW¼ sec.3, T.52 S., R.69 E., on Admiralty Island, in Tongass National Forest, 1,300 ft upstream from the mouth of the North Arm of Hood Bay and 12 mi southeast of Angoon.	8.64	1971-78	10-17-77	18.00	705
15108250	Game Creek near Hoonah	Lat 58°03'02", long 135°29'21", in SE¼SE¼ sec.18, T.44 S., R.61 E., on Chichagof Island, in Tongass National Forest, 2 mi upstream from mouth and 4.5 mi southwest of Hoonah.	42.8	1970-78	10-17-77	a	a
15108290	Gos Creek near Elfin Cove	Lat 58°11'49", long 136°03'07", in NW¼SW¼ sec.26, T.42 S., R.58 E., on Chichagof Island, in Tongass National Forest, 0.5 mi upstream from mouth behind Goose Island in Mud Bay and 11 mi east of Elfin Cove.	16.7	1973-78	10-17-77	a	a
		South-central Alaska					
15198500	Station Creek near Mentasta	Lat 62°56'12", long 143°39'54", in SW¼ sec.2, T.13 N., R.9 E., on left bank, 0.3 mi upstream from wooden bridge on Mentasta Village Road, 1 mi west of Slana-Tok Highway, and 4 mi east of Mentasta.	15.3	1970-78	1978	a	a
15199000	Copper River Tributary near Slana	Lat 62°43'03", long 144°14'21", in SW¼ sec.23, T.11 N., R.6 E., on right bank 20 ft upstream from culvert at mi 51.8 on the Slana-Tok Highway and 9 mi west of Slana.	4.32	1963-78	7-25-78	12.78	110
15201000	Dry Creek near Glennallen	Lat 62°08'49", long 145°28'31", in NE¼ sec.7, T.4 N., R.1 W., on right bank 20 ft upstream from culvert at mi 119 Richardson Highway and 3.3 mi north of Glennallen.	11.4	1963-78	5- -78	a	c14
15201100	Little Nelchina River Tributary near Eureka Lodge	Lat 61°59'17", long 147°00'34", in NW¼ sec.2, T.2 N., R.10 W., Matanuska Susitna Borough, on right bank at mi 132 Glenn Highway and 6 mi northeast of Eureka Lodge.	7.81	1964-78	5-15-78	10.74	50
15208100	Squirrel Creek at Tonsina	Lat 61°40'05", long 145°10'26", in NW¼ sec.26, T.2 S., R.1 E., on right bank 150 ft upstream from highway bridge at mi 79.5 Richardson Highway, 0.3 mi northeast of Tonsina River bridge, 0.3 mi upstream from mouth, and 0.4 mi north of Tonsina.	70.5	1964-65, #1965-75, 1976-78	6- -78	1.41	190
15208200	Rock Creek near Tonsina	Lat 61°45'32", long 145°09'14", in NW¼ sec.25, T.1 S., R.1 E., on right bank at mi 86.1 Richardson Highway, and 6.7 mi north of Tonsina Lodge.	14.3	1966-78	5- -78	a	<40
15209000	Chititu Creek near May Creek	Lat 61°22'12", long 142°40'50", in NW¼ sec.11, T.6 S., R.15 E., on right bank 10 ft below wooden bridge on May Creek-Dan Creek Road and 2 mi north of May Creek landing strip.	30.9	1973-78	8-10-78	5.91	360
15209100	May Creek near May Creek	Lat 61°20'42", long 142°41'49", in SE¼ sec.15, T.6 S., R.15 E., on left bank 100 ft west of the May Creek-Dan Creek Road and 0.3 mi northwest of the north end of the May Creek landing strip.	10.4	1973-78	5- -78	a	<12
15211700	Strelna Creek near Chitina	Lat 61°30'40", long 144°04'00", in NE¼ sec.22, T.4 S., R.7 E., 300 ft upstream from timber bridge on Chitina-McCarthy Road and 13 mi east of Chitina.	23.8	1971-78	6-12-78	9.50	105

Operated as a continuous-record station.
< Less than.
a Unknown.
c At least this high.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		South-central Alaska--Continued					
15211900	O'Brien Creek near Chitina	Lat 61°28'59", long 144°27'23", in NW¼NW¼ sec.35, T.4 S., R.5 E., 100 ft upstream from timber bridge on trail to Copper River gaging station, 0.1 mi upstream from mouth at Copper River, and 2.5 mi south of Chitina.	44.8	1970-78	6-12-78	a	c182
15212500	Boulder Creek near Tiekel	Lat 61°20'08", long 145°18'26", in NW¼ sec.19, T.6 S., R.1 E., on right upstream wingwall at mi 51.4 Richardson Highway, and 0.7 mi north of Tiekel.	9.80	1963-78	6-12-78	8.42	155
15236200	Shakespeare Creek at Whittier	Lat 60°46'35", long 148°43'35", in NE¼ sec.22, T.8 N., R.4 E., on upstream right wingwall of concrete bridge 0.5 mi upstream from mouth, and 1.8 mi west of the Alaska railroad terminal building at Whittier.	3.05	1969-78	8- -75 9- -76 8- -77 9-13-78	10.92 11.19 11.87 11.29	*360 *390 *485 400
15237400	Chalmers River near Cordova	Lat 60°13'10", long 147°13'30", in SE¼ sec.32, T.1 N., R.13 E., on Montague Island, 1.2 mi upstream from mouth at Port Chalmers, and 58 mi southwest of Cordova.	6.32	1967-78	9-13-78	11.72	2,070
15239500	Fritz Creek near Homer	Lat 59°42'30", long 151°20'35", in SW¼ sec.28, T.5 S., R.12 W., Kenai Peninsula Borough, on left bank 200 ft above culvert on East Road and 9 mi northeast of Homer.	10.4	1963-78	6-14-78	16.42	145
15239800	Diamond Creek near Homer	Lat 59°40'10", long 151°40'00", in SE¼ sec.9, T.6 S., R.14 W., Kenai Peninsula Borough, on right upstream wingwall of culvert on Sterling Highway 1.3 mi upstream from mouth at Cook Inlet and 4.6 mi northwest of Homer.	5.35	1963-78	6-14-78	10.67	54
15240500	Cook Inlet Tributary near Ninilchik	Lat 59°58'45", long 151°43'20", in NE¼ sec.29, T.2 S., R.14 W., Kenai Peninsula Borough, on left upstream culvert wingwall on [illegible]ing Highway 0.2 mi upstream from mouth at Cook Inlet and 5.4 mi southwest of Ninilchik.	*5.19	1966-78	4- -78	13.08	75
15243950	Porcupine Creek near Primrose	Lat 60°20'30", long 149°22'15", in NE¼ sec.24, T.3 N., R.1 W., Kenai Peninsula Borough, on right bank at 18-mi campground road 0.2 mi upstream from mouth at Kenai Lake and 0.8 mi west of Primrose.	16.8	1963-78	9-13-78	10.80	600
15254000	Crescent Creek near Cooper Landing	Lat 60°29'49", long 149°40'38", in NW¼ sec.29, T.5 N., R.3 W., Kenai Peninsula Borough, on left bank at bridge on Old Seward-Kenai Highway, 4.2 mi downstream from Crescent Lake, and 4.4 mi east of Cooper Landing.	31.7	#1949-66, 1967-78	9-13-78	11.46	235
15269500	Granite Creek near Portage	Lat 60°43'40", long 149°17'00", in NE¼ sec.4, T.7 N., R.1 E., Kenai Peninsula Borough, on upstream side of center pier of bridge on Seward-Anchorage Highway and 12 mi southwest of Portage.	28.2	1967-78	9-13-78	11.65	1,570
15271900	Cub Creek near Hope	Lat 60°52'12", long 149°26'02", in NW¼ sec.15, T.9 N., R.1 W., Kenai Peninsula Borough, on right wingwall of culvert on Hope Highway 0.1 mi upstream from mouth at Sixmile Creek and 7.7 mi southeast of Hope.	1.80	1965-78	9-13-78	12.06	53
15272530	California Creek near Girdwood	Lat 60°57'53", long 149°08'02", in NW¼ sec.17, T.10 N., R.2 E., Municipality of Anchorage, at culverts on Alyeska Highway, 0.2 mi west of Girdwood Post Office, and 2.0 mi northeast of Seward-Anchorage Highway.	6.96	1967-78	9-13-78	16.70	300

* Revised.
# Operated as a continuous-record station.
a Unknown.
c At least this high.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
		South-central Alaska--Continued					
15274800	South Branch of South Fork Chester Creek near Anchorage	Lat 61°12'37", long 149°43'52", on line between sec.13 and 24, T.13 N., R.3 W., Municipality of Anchorage, at Muldoon Road crossing and 5.4 mi east of Anchorage.	10.8	1967-78	7-22-78	10.60	29
15282400	Puritan Creek near Sutton	Lat 61°48'42", long 148°08'01", in NW¼ sec.23, T.20 N., R.7 E., Matanuska-Susitna Borough, on right bank below bridge at mi 89.3 Glenn Highway and 25.2 mi northeast of Sutton.	8.51	1963-78	6-20-78	7.44	33
15283500	Eska Creek near Sutton	Lat 61°43'44", long 148°54'31", in NE¼ sec.21, T.19 N., R.3 E., Matanuska-Susitna Borough, on right bank upstream from old railroad bridge near Eska-Jonesville Road and 1.5 mi northeast of Sutton.	13.4	1965-69, 1971-78	6-20-78	10.94	130
15285000	Wasilla Creek near Palmer	Lat 61°38'47", long 149°11'45", in SW¼ sec.13, T.18 N., R.1 E., Matanuska-Susitna Borough, on left bank 60 ft upstream from culvert entrance on Wasilla Fishhook Road and 4.1 mi northeast of Palmer.	*16.6	1971, 1976-78	5-15-78	9.13	59
15291100	Raft Creek near Denali	Lat 63°03'04", long 147°16'22", in SE¼ sec.36, T.21 S., R.2 E., Matanuska-Susitna Borough, on right bank above culverts at mi 69.2 Denali Highway and 10.7 mi southeast of Denali.	4.33	1963-78	5-15-78	f13.64	a
15293000	Caswell Creek near Caswell	Lat 61°56'55", long 150°03'14", in SW¼ sec.32, T.22 N., R.4 W., Matanuska-Susitna Borough, above culvert on Parks Highway and 2.3 mi south of Caswell.	19.6	1963-78	5-12-78	11.32	65
15294025	Moose Creek near Talkeetna	Lat 62°19'00", long 150°26'30", in NE¼ sec.30, T.26 N., R.7 W., Matanuska-Susitna Borough, at bridge on Petersville Road and 10.5 mi west of Talkeetna.	52.3	1972-78	5- 5-78	a	<1000
15297500	Red Cloud Creek Tributary near Kodiak	Lat 57°49'00", long 152°37'20", in SW¼ sec.24, T.27 S., R.21 W., Kodiak Island Borough, 0.1 mi upstream from mouth and 8.4 mi northwest of Kodiak.	1.51	1963-78	9-13-78	13.06	509
		Southwest Alaska					
15300200	Roadhouse Creek near Iliamna	Lat 59°45'26", long 154°50'49", in SW¼ sec.11, T.5 W., R.32 W., at bridge on Iliamna Road and 2.1 mi east of Iliamna airport.	20.8	1973-78	8-20-78	10.85	70
15302900	Moody Creek at Aleknagik	Lat 59°16'34", long 158°35'42", in SE¼ sec.30, T.10 S., R.55 W., on left bank 12 ft upstream from culvert entrance and 500 ft upstream from mouth at Wood River at the Aleknagik Mission.	1.28	1968-78	10-10-77	18.35	26
15303010	Silver Salmon Creek near Aleknagik	Lat 59°13'34", long 158°40'21", in NW¼ sec.14, T.11 S., R.56 W., on right bank 4.5 mi upstream from mouth at Wood River and 4 mi southwest of Aleknagik.	4.46	1964-78	10-10-77	9.71	118
		Yukon Alaska					
15305900	Dennison Fork near Tetlin Junction	Lat 63°25'24", long 142°29'00", in SW¼ sec.14, T.19 N., R.15 E., on right bank 10 ft upstream from culvert at mi 10.7 Taylor Highway and 8.3 mi northeast of Tetlin Junction.	2.93	1963-78	7- -78	11.22	20

* Revised.
< Less than.
a Unknown.
f Ice effect.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	 Gage height (ft)	 Dis-charge (ft^3/s)
		Yukon Alaska--Continued					
15305920	West Fork Tributary near Tetlin Junction	Lat 63°40'03", long 142°16'00", in SW¼ sec.23, T.22 N., R.16 E., on left bank 7 ft upstream from culvert at mi 32 Taylor Highway and 26.5 mi northeast of Tetlin Junction.	1.02	1966-78	7- -78	11.88	51
15305950	Taylor Creek near Chicken	Lat 63°54'27", long 142°12'58", in NW¼ sec.35, T.25 N., R.16 E., on right bank 29 ft upstream from bridge at mi 50.3 Taylor Highway and 14.5 mi southwest of Chicken.	38.4	1966-78	6- -78	11.23	92
15341900	North Fork King Solomon Creek near Eagle	Lat 64°32'12", long 141°15'00", in SE¼ sec.26, T.4 S., R.32 E., 1,000 ft upstream from bridge at mi 135.8 Taylor Highway and 18 mi south of Eagle.	18.5	1963-69 1975-78	6-23-78	20.40	160
15344000	King Creek near Dome Creek	Lat 64°23'28", long 141°24'36", in SW¼ sec.16, T.6 S., R.32 E., on left bank 100 ft upstream from culvert at mi 119.8 Taylor Highway 0.2 mi upstream from mouth at O'Brien Creek, 4.7 mi east of Dome Creek, and 29 mi south of Eagle.	5.99	1975-78	6- -78	6.39	38
15442500	Quartz Creek near Central	Lat 65°37'09", long 144°28'55", in SW¼ sec.7, T.9 N., R.16 E., on left bank 20 ft upstream from bridge at mi 138.5 Steese Highway 1 mi upstream from mouth at Crooked Creek, 10 mi east of Central, and 19 mi southwest of Circle.	17.2	1967, 1970-78	6-13-78	c17.12	c47
15453610	Ray River Tributary near Stevens Village	Lat 65°56'57", long 150°55'00", in SE¼ sec.17, T.13 N., R.11 W., on right bank 10 ft upstream from culvert on TAPS haul road and 22 mi west of Stevens Village.	8.00	1977-78	6- -78	16.19	(+)
15457700	Erickson Creek near Livengood	Lat 65°34'30", long 148°56'18", in SE¼ sec.26, T.9 N., R.7 W., 100 ft downstream of culvert at mi 12.5 on the TAPS haul road and 12.5 mi northwest of Livengood.	26.3	1973-78	6- 3-78 5-13-75 5- 4-76 5-31-77 5- -78	17.47 21.34 17.72 *21.78 16.66	*285 *780 *310 860 205
15470300	Little Jack Creek near Nabesna	Lat 62°32'47", long 143°19'30", in SE¼ sec.22, T.9 N., R.11 E., on left bank 0.2 mi upstream from wooden bridge at mi 25.8 Nabesna Road and 15.6 mi northwest of Nabesna.	6.73	1975-78	5- -78	15.06	33
15470330	Chalk Creek near Nabesna	Lat 62°30'19", long 143°09'24", in NE¼ sec.3, T.8 N., R.12 E., on right bank 0.1 mi upstream from wooden bridge at mi 32.3 Nabesna Road and 10.3 mi northwest of Nabesna.	14.8	1975-78	6-20-78	16.20	100
15470340	Jack Creek near Nabesna	Lat 62°27'52", long 143°06'18", in NW¼ sec.24, T.8 N., R.12 E., on left bank 0.1 mi above bridge on Nabesna Road and 7 mi northwest of Nabesna.	115	1975-78	6- -78	19.49	(+)
15471000	Bitters Creek near Northway Junction	Lat 63°09'38", long 142°05'20", in SE¼ sec.13, T.16 N., R.17 E., on left bank 52 ft upstream from culvert at mi 1,280 Alaska Highway 1 mi upstream from mouth at Tanana River and 13.5 mi northwest of Northway Junction.	15.4	1964-78	6- -78	10.75	53
15471500	Tanana River Tributary near Tetlin Junction	Lat 63°16'45", long 142°30'27", in SE¼ sec.3, T.17 N., R.15 E., on left bank 6 ft upstream from culvert at mi 1,297.8 Alaska Highway and 3.7 mi southeast of Tetlin Junction.	2.43	1965-78	6- -78	11.38	6
15473600	Log Cabin Creek at Log Cabin Inn	Lat 63°01'28", long 143°20'36", on right bank 20 ft upstream from bridge at mi 97.4 on the old section of the Slana-Tok Highway and 24.9 mi southwest of Tok.	10.7	1965-78	6- -78	9.46	68

* Revised.
+ To be determined.
c At least this high.

BEST DOCUMENT AVAILABLE

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		Yukon Alaska--Continued					
15473950	Clearwater Creek near Tok	Lat 63°10'19", long 143°12'03", in NE¼ sec.18, T.16 N., R.11 E., 0.8 mi upstream from culverts at mi 109.5 Glenn Highway and 12.5 mi southwest of Tok.	36.4	1963-78	6- -78	44.91	51
15476049	Tanana River Tributary near Cathedral Rapids	Lat 63°24'24", long 143°48'28", in SE¼ sec.23, T.19 N., R.8 E., on left bank 0.3 mi upstream from culvert at mi 1,341 Alaska Highway 0.6 mi upstream from mouth at Tanana River and 2.5 mi northwest of Cathedral Rapids.	3.09	1970, 1973-78	1978	--	No flow
15476200	Tanana River Tributary near Dot Lake	Lat 63°41'40", long 144°17'40", in NW¼ sec.17, T.22 N., R.6 E., on left bank 20 ft upstream from culvert at mi 1,369 Alaska Highway and 7.4 mi west of Dot Lake.	11.0	1964-78	5-15-78	11.04	62
15476400	Dry Creek near Dot Lake	Lat 63°41'32", long 144°34'16", in NW¼ sec.24, T.14 S., R.16 E., on piling near right bank 64 ft above bridge at mi 1,378.1 Alaska Highway 0.6 mi upstream from mouth at Tanana River and 15.7 mi west of Dot Lake.	57.6	1963-65, #1965-69, 1969-78	5-29-78	12.31	220
15478010	Rock Creek near Paxson	Lat 63°04'16", long 146°06'17", in NW¼ sec.30, T.21 S., R.9 E., at mi 24.8 Denali Highway and 18 mi west of Paxson.	50.3	1963-78	6-25-78	10.38	500
15478050	McCallum Creek near Paxson	Lat 63°13'27", long 145°38'56", in SW¼ sec.33, T.19 S., R.11 E., on right bank upstream wingwall 8 ft upstream from bridge at mi 202.4 Richardson Highway 0.5 mi upstream from mouth at Phelan Creek and 14.5 mi northwest of Paxson.	15.5	1966-78	7-14-78	10.28	210
15478500	Ruby Creek near Donnelly	Lat 63°37'52", long 145°53'03", in NE¼ sec.7, T.15 S., R.10 E., on left bank 51 ft upstream from culvert at mi 234.8 Richardson Highway and 2.3 mi south of Donnelly.	5.32	1963-78	7-14-78	13.08	350
15480000	Banner Creek at Richardson	Lat 64°17'24", long 146°20'56", in SW¼ sec.22, T.7 S., R.7 E., Fairbanks North-Star Borough, on right bank 55 ft upstream from bridge at mi 295.4 Richardson Highway 0.1 mi upstream from mouth at Tanana River and 0.4 mi northwest of Richardson.	20.2	1963-78	5- -78	f12.45	a
15490000	Monument Creek at Chena Hot Springs	Lat 65°03'17", long 146°03'05", in SE¼ sec.26, T.3 N., R.8 E., Fairbanks North-Star Borough , on left bank 800 ft from lodge at Chena Hot Springs, 0.4 mi upstream from unnamed tributary, and 1.3 mi upstream from North Fork Chena River.	26.7	1967-78	1978	a	a
15515800	Seattle Creek near Cantwell	Lat 63°19'32", long 148°14'49", on line between sec.25 and 26, T.18 S., R.4 W., Matanuska-Susitna Borough, on left downstream wingwall of bridge at mi 110.9 Denali Highway and 22.4 mi southeast of Cantwell.	36.2	1963-65 #1966-75, 1976-78	5- -78	f4.88	a
15515900	Lily Creek near Cantwell	Lat 63°19'54", long 148°16'16", in NW¼ sec.26, T.18 S., R.4 W., Matanuska-Susitna Borough, 300 ft upstream from culvert at mi 11.9 Denali Highway and 20 mi southeast of Cantwell.	5.63	1965-78	5- -78	f22.72	a
15516200	Slime Creek near Cantwell	Lat 63°30'34", long 148°48'39", in SE¼ sec.24, T.16 S., R.7 W., on left bank upstream from culvert on Parks Highway and 9.1 mi northeast of Cantwell.	6.90	1965-78	6- -78	12.90	157

# Operated as a continuous-record station.
a Unknown.
f Ice effect.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
		Yukon Alaska--Continued					
15518200	Rock Creek near Ferry	Lat 64°01'56", long 149°08'40", in SW¼ sec.21, T.10 S., R.8 W., at midchannel 42 ft upstream from culverts on the Parks Highway 0.3 mi upstream from mouth and 1.4 mi northwest of Ferry.	8.17	1964-78	5-10-14-78	9.48	43
15518250	Birch Creek near Rex	Lat 64°10'35", long 149°17'26", in SW¼ sec.35, T.8 S., R.9 W., on left bank 20 ft upstream from culvert on the Parks Highway and 4.2 mi south of Rex.	4.10	1964-78	8-22,23-78	8.92	25
15519200	Brooks Creek Tributary near Livengood	Lat 65°23'02", long 148°56'12", on line between sec.2, T.6 N., R.7 W., and sec. 35, T.7 N., R.7 W., on right bank 20 ft upstream from culvert at mi 84 Elliot Highway and 15 mi southwest of Livengood.	7.81	1964-78	6-27-29-78	9.40	47
15520000	Idaho Creek near Miller House	Lat 65°21'13", long 146°09'33", in NW¼ sec.17, T.6 N., R.8 E., Fairbanks North-Star Borough, on right bank 100 ft downstream from culverts at mi 79 Steese Highway and 30 mi southwest of Miller House.	5.31	1963-78	5- -78	c14.54	c90
155416000	Globe Creek near Livengood	Lat 65°17'08", long 148°07'56", 0.1 mi upstream from culverts at mi 38 Elliot Highway 9 mi upstream from mouth and 19 mi southeast of Livengood.	23.0	1964-78	6- -78	13.45	110
15564868	Snowden Creek near Wiseman	Lat 67°44'16", long 149°45'10", in SW¼ sec.26, T.34 N., R.10 N., on right bank 20 ft upstream from culvert on the TAPS haul road and 24.5 mi northeast of Wiseman.	16.7	1977-78	7- 4-77 6- -78	*25.60 24.19	445 320
15564872	Nugget Creek near Wiseman	Lat 67°29'25", long 144°52'20", in NW¼ sec.3, T.31 N., R.10 W., on right bank 300 ft upstream from culvert at the TAPS haul road and 8.7 mi northeast of Wiseman.	9.47	1975-78	6- -76 5- -77 6-25-78	15.93 16.42 16.01	*132 *167 137
15564884	Prospect Creek near Prospect Camp	Lat 66°46'56", long 150°41'06", in NW¼ sec.31, T.23 N., R.14 W., on right bank 200 ft upstream from bridge on the TAPS haul road, 0.4 mi downstream from TAPS pipeline crossing, 1.5 mi upstream from mouth, and 2.1 mi south of Pump Station 5.	110	1975-78	6-18-78	6.30	860
15564887	Bonanza Creek Tributary near Prospect Camp	Lat 66°36'52", long 150°41'24", in SE¼ sec.25, T.21 N., R.15 W., on right bank 0.3 mi downstream from culverts on the TAPS haul road, 3.4 mi upstream from mouth, and 13.5 mi south of Pump Station 5.	11.7	1975-78	6-18-78	18.12	137
		Northwest Alaska					
15585000	Goldengate Creek near Nome	Lat 64°26'03", long 165°02'46", in SW¼ sec.15, T.12 S., R.32 W., on right bank 500 ft upstream from culvert on Nome-Council Road and 11 mi southeast of Nome.	1.55	1965 1976-78	9-24-77 9-24-78	10.97 11.72	12 39
15619000	Dexter Creek near Nome	Lat 64°35'11", long 165°16'39", in NE¼ sec.33, T.10 S., R.33 W., on left bank 10 ft upstream from culvert on Nome-Teller Road 0.2 mi upstream from mouth and 7 mi northeast of Nome.	2.99	1976-78	1978	(+)	(+)
15625000	Arctic Creek near Nome	Lat 64°38'15", long 165°42'46", in NE¼ sec.8, T.10 S., R.35 W., on right bank 20 ft upstream from culvert on Nome-Teller Road 2 mi upstream from mouth and 13 mi northwest of Nome.	1.76	1970-78	6-22-78	13.04	80

* Revised.
+ To be determined.
c At least this high.

Annual maximum discharge at crest-stage gage partial-record stations during water year 1978--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Dis-charge (ft³/s)
		Northwest Alaska--Continued					
15633000	Washington Creek near Nome	Lat 64°42'52", long 165°49'13", in NW¼ sec.14, T.9 S., R.35 W., on right bank upstream from culvert on Nome-Teller road and 19 mi northwest of Nome.	6.34	1964-78	6-22-78	10.95	86
15668100	Star Creek near Nome	Lat 64°55'40", long 164°57'39", in NW¼ sec.33, T.6 S., R.31 W., on right bank upstream from culvert at mi 40.5 Nome-Taylor road 0.9 mi upstream from mouth and 32 mi northeast of Nome.	3.78	1964-78	9-24-78	9.36	32
		Arctic Slope Alaska					
15905000	Galbraith Lake Tributary near	Lat 68°29'30", long 149°30'36", in NE¼ sec.15, T.11 S., R.11 E., 0.4 mi upstream from culvert on the road to Galbraith Camp and 2.8 mi northwest of Galbraith.	7.55	1975-78	6- -78	29.38	e28
15910200	Happy Creek at Happy Valley	Lat 69°08'50", long 148°49'50", in SE¼ sec.30, T.3 S., R.14 E., North-Slope Borough, on right bank at Happy Valley Camp 1 mi upstream from mouth and 17.5 mi south of Sagwon.	34.5	1972-78	6- 4- 6-78	17.98	1,220

e Estimated.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Southeast Alaska				
/150'1860 Keta River	Boca de Quadra	Lat 55°22'34", long 130°23'58", in SW¼SE¼ sec.8, T.75 S., R.98 E., 1.6 mi upstream from mouth at Boca de Quadra, 49 mi east of Ketchikan.	52.6	--	10-06-77 11-30-77 2-01-78 5-25-78 9-13-78	207 289 64 594 460
/15011865 Hill Creek	Keta River	Lat 55°25'16", long 130°27'00", in SW¼SE¼ sec.25, T.74 S., R.98 E., about 500 ft upstream from White Creek, 47 mi east of Ketchikan.	5.53	--	10-18-77 11-29-77 5-24-78 9-13-78	33 20 52 47
/15011875 Hill Creek	Keta River	Lat 55°22'56", long 130°24'23", in SE¼NW¼ sec.8, T.75 S., R.99 E., about 0.5 mi upstream from mouth, and 49 mi east of Ketchikan.	14.0	--	10-06-77 11-30-77 5-25-78 9-13-78	49 68 128 90
/15011890 Beaver Creek	Blossom River	Lat 55°25'42", long 130°30'58", in NE¼NE¼ sec.28, T.74 S., R.98 E., 0.8 mi upstream from mouth, 45 mi east of Ketchikan.	1.98	--	5-24-78 9-13-78	36 6.6
15051010 Salmon Creek	Gastineau Channel	Lat 58°19'52", long 134°28'10", in SE¼NW¼ sec,9, T.41 S., R.66 E., at highway bridge, 0.1 mi upstream from mouth, 2.7 mi northwest of Juneau.	11.0	1963,1968, 1969,1973	2-03-78	5.6
/Big Sore Creek	Greens Creek	Lat 58°05'00", long 134°37'19", about 150 ft upstream from confluence with Greens Creek, 6.9 mi upstream from mouth of Greens Creek, and 19 mi southwest of Juneau.	--	--	8-18-78	6.4
/Greens Creek	Hawk Inlet	Lat 58°04'44", long 134°38'37", about 200 ft upstream from Gallagher Creek, 6.1 mi upstream from mouth and 19 mi southwest of Juneau.	--	--	8-18-78	52
/Gallagher Creek	Greens Creek	Lat 58°04'43", long 134°38'40", about 120 ft upstream from mouth, 6.1 mi upstream from mouth of Greens Creek, and 19 mi southwest of Juneau.	--	--	9-18-78	3.4
15101500 Greens Creek near Juneau	Hawk Inlet	Lat 58°05'18", long 134°44'49", 1.1 mi upstream from mouth, 19 mi southwest of Juneau.	22.8	--	8-18-78	108
		South-Central Alaska				
15214000 Copper River	Gulf of Alaska	Lat 60°40'24", long 144°44'36", in SE¼ sec.7, T.14 S., R.4 E., at Million Dollar Bridge, at outlet to Miles Lake and 36 mi northeast of Cordova.	a21,800	1913	7-13-78	215,000
‡15237400 Chalmers River	Port Chalmers	Lat 60°13'10", long 147°13'30", in SE¼ sec.32, T.1 N., R.13 E., on Montague Island, 1.2 mi upstream from mouth at Port Chalmers, and 58 mi southwest of Cordova.	6.32	1967-77	5-26-78	151
Fish Creek	Seldovia Lagoon	Lat 59°25'59", long 151°41'48", in NE¼ sec.6, T.9 S., R.14 W., at wooden foot bridge near Backer homestead and 1 mi south of Seldovia.	--	--	6-02-78	17
/Bean Creek	Kenai River	Lat 60°29'44", long 149°51'20", in NE¼ sec.30, T.5 N., R.3 W., 0.9 mi upstream from mouth, and 0.9 mi northwest of Cooper Landing.	--	--	9-10-78	b0.27
/Bean Creek Tributary	Bean Creek	Lat 60°29'45", long 149°51'15", in NW¼ sec.29, T.5 N., R.3 W., 100 ft upstream from mouth, and 0.9 mi northwest of Cooper Landing.	--	--	9-10-78	b0.32

/ See analyses of samples collected at miscellaneous sites.
‡ Also a crest-stage partial-record station.
a Approximately.
b Base flow.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		South-Central Alaska--Continued				
Bean Creek	Kenai River	Lat 60°29'40", long 149°50'58", in SW¼ sec.29, T.5 N., R.3 W., at Bill Knaack bridge, 0.7 mi upstream from mouth, and 0.7 mi northwest of Cooper Landing.	.6	--	9-10-78	b0.46
Bean Creek	Kenai River	Lat 60°29'38", long 149°50'26", in NE¼SW¼ sec.29, T.5 N., R.3 W., at bridge, 0.4 mi upstream from mouth, and 0.4 mi northwest of Cooper Landing.	--	1977	9-10-78	b0.57
Bean Creek	Kenai River	Lat 60°29'30", long 149°49'58", in SE¼ sec.29, T.5 N., R.3 W., at mouth, and 0.1 mi northwest of Cooper Landing.	--	--	9-10-78	b0.38
Russian Jack Springs	Chester Creek	Lat 61°12'25", long 149°46'55", in NW¼ sec.22, T.13 N., R.3 W., and 3.5 mi east of Anchorage.	--	1948-49 1952-65 1967-74 1976-77	9-01-78	2.7
15277200 Meadow Creek near Eagle River	Eagle River	Lat 61°19'14', long 149°32'11", in NW¼ sec.7, T.14 N., R.1 W., at culvert on Eagle Loop Road and 1 mi east of Eagle River.	7.43	1965-67c 1971-74c 1977	4-07-78	1.3
Mirror Creek near Chugiak	Knik Arm	Lat 61°25'45", long 149°24'50", in SW¼SW¼ sec.35, T.16 N., R.1 W., at outlet to Mirror Lake, at culvert entrance on Old Glenn Highway and 3.5 mi northeast of Chugiak.	--	--	10-10-77 11-02-77	0.79 0.60
‡15285000 Wasilla Creek near Palmer	Knik Arm	Lat 61°38'47", long 149°11'45", in SW¼ sec.13, T.18 N., R.1 E., 60 ft upstream from culvert entrance on Wasilla-Fishhook Road and 4.1 mi northeast of Palmer.	*16.6	1954-55 1971	8-11-76 8-25-76 5-05-77 6-21-77 3-16-78 7-31-78 8-22-78	8.5 6.8 71 35 3.0 19 10
/Lily Creek	Nancy Lake	Lat 61°42'51", long 149°58'51", in NW¼ sec.27, T.19 N., R.4 W., 1 mi upstream from mouth and 2.9 mi southeast of Willow.	--	--	8-23-78	0.78
/Lily Creek	Nancy Lake	Lat 61°42'15", long 150°00'04", in SE¼ sec.28, T.18 N., R.4 W., 0.1 mi upstream from mouth and 3.2 mi southeast of Willow.	--	--	8-23-78	0.83
/Lake Creek	Little Susitna River	Lat 61°40'26", long 149°59'24", in SW¼ sec.3, T.18 N., R.4 W., at Nancy Lake outlet and 5.3 mi southeast of Willow.	--	--	8-23-78	6.1
/Susitna River	Cook Inlet	Lat 62°10'35", long 150°10'18", in NW¼ sec.15, T.24 N., R.5 W., at bridge on Anchorage-Fairbanks Highway, 1.5 mi downstream from Sunshine Creek, and 3 mi west of Sunshine.	a11,500	1965,1971	10-03-77	27,400
15292800 Montana Creek near Montana	Susitna River	Lat 62°06'32", long 150°03'12", in SW¼ sec.5, T.23 N., R.4 W., at bridge on Anchorage-Fairbanks Highway, and 2.1 mi north of Montana.	164	1963-72c	1-12-73 10-03-77	169 540
‡15293000 Caswell Creek near Caswell	Susitna River	Lat 61°56'55", long 150°03'14", in SW¼ sec.32, T.22 N., R.4 W., at culvert on Anchorage-Fairbanks Highway and 2.3 mi south of Caswell.	19.6	--	(Listed below)	

6-05-63	55	8-22-66	36	6-29-70	13	5-24-73	34	5-16-77	81
7-09-63	39	8-27-66	24	9-16-70	32	4-30-74	46	5-31-77	65
7-31-63	42	5-24-67	58	5-17-71	70	5-13-75	41	7-21-77	34
9-26-63	28	6-30-67	83	7-01-71	73	5-15-75	75	8-24-77	18
5-28-64	83	8-21-67	66	9-16-71	35	5-20-75	124	9-29-77	59
9-14-65	31	9-11-68	17	5-23-72	132	5-12-76	49	5-19-78	18
6-03-66	44	7-24-69	11	8-09-72	23	5-24-76	27	6-27-78	24
7-11-66	29	3-31-70	7.7	9-26-72	31				

/ See analyses of samples collected at miscellaneous sites.
‡ Also a crest-stage partial-record station.
* Revised.
a Approximately.
b Base flow.
c At discontinued crest-stage partial-record site.

BEST DOCUMENT AVAILABLE

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		South-Central Alaska--Continued				
‡15294025 Moose Creek near Talkeetna	Kroto Creek	Lat 62°19'00", long 150°26'30", in NE¼ sec.30, T.26 N., R.7 W., at bridge on Petersville Road and 10.5 mi west of Talkeetna.	62.3	--	(Listed below)	

6-23-72	82	4-30-74	393	6-04-75	299	5-24-76	525	9-29-77	653
8-09-72	12	5-13-75	620	6-18-75	61	5-16-77	612	3-13-78	b4.0
9-26-72	171	5-15-75	784	7-18-75	46	5-31-77	420	5-05-78	266
9-30-72	1,290	5-20-75	579	9-23-75	259	6-15-77	86	7-10-78	58
8-14-73	49	5-22-75	572	5-12-76	813	7-20-77	21	8-22-78	31
9-25-73	40								

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Shotgun Creek near Port Lions	Falls Creek	Lat 57°39'20", long 152°56'15", in NW¼NW¼ sec.23, T.29 S., R.23 W., on Kodiak Island, 1.0 mi upstream from mouth and 15 mi suth of Port Lions.	a1.9	--	7-12-78 8-12-78 9-14-78	83 75 97
Falls Creek near Port Lions	Kizhuyak River	Lat 57°40'08", long 152°56'00", in NW¼NW¼ sec.14, T.29 S., R.23 W., on Kodiak Island, 0.5 mi upstream from Shotgun Creek, 1.6 mi upstream from mouth and 14 mi south of Port Lions.	a4.3	--	7-12-78 8-12-78	187 186
Unnamed Creek at Larsen Bay	Larsen Bay	Lat 57°32'10", long 153°59'00", in SE¼NE¼ sec.31, T.30 S., R.29 W., on Kodiak Island, 0.3 mi downstream from diversion and 0.15 mi upstream from culvert at mouth at Larsen Bay.	a6.2	--	7-13-78	8.1
Unnamed Creek near Old Harbor	Barling Bay	Lat 57°14'16", long 153°20'20", in SW¼SE¼ sec.12, T.34 S., R.26 W., on Kodiak Island, 2.7 mi northwest of Old Harbor and 3.5 mi upstream from mouth.	a4.5	--	8-24-78 9-15-78	29 76
Unnamed Creek near Old Harbor	Sitkalidak Strait	Lat 57°13'09", long 153°17'56", in NW¼ sec.20, T.34 S., R.25 W., on Kodiak Island, 350 ft upstream from infiltration gallery, 0.2 mi upstream from mouth and 1 mi west of Old Harbor.	a2.6	--	6-23-70 7-14-78	13 9.3
Hidden Basin Creek near Port Lions	Hidden Basin	Lat 57°35'42", long 153°00'45", in NW¼ sec.8, T.30 S., R.23 W., 6.5 mi upstream from mouth and 20 mi south of Port Lions.	a3.0	--	7-12-78 8-12-78 9-15-78	92 119 68
Mennonite Creek at Port Lions	Settler Cove	Lat 57°51'54", long 152°53'55", in NE¼SE¼ sec.5, T.27 S., R.22 W., on Kodiak Island, 15 ft upstream from culvert, 400 ft upstream from mouth and at Port Lions.	a11	--	7-13-78 9-15-78	11 165
		Southwest Alaska				
Elva Lake Outlet	Nerka Lake	Lat 59°06'24", long 159°07'30", 500 ft below outlet of Elva Lake, and 30 mi northwest of Aleknagik.	--	1977	10-14-77	46
		Yukon Alaska				
Nation River	Yukon River	Lat 65°30'28", long 141°13'08", in sec. 31, T.8 N., R.32 E., 0.2 mi downstream from Jungle Creek and 49 mi north of Eagle.	280	--	6-20-78 8-03-78	1,220 171
Nation River	Yukon River	Lat 65°17'36", long 141°37'50", in sec.5, T.5 N., R.30 E., 0.1 mi upstream from Hard Luck Creek and 37 mi northwest of Eagle.	630	--	6-22-78 8-04-78	2,140 325
Hard Luck Creek	Nation River	Lat 65°17'30", long 141°37'45", in sec.5, T.5 N., R.30 E., at mouth 37 mi northwest of Eagle.	250	--	6-21-78 8-04-78	754 101
Nation River	Yukon River	Lat 65°12'24", long 141°41'20", in sec.5, T.4 N., R.30 E., 1.0 mi upstream from mouth and 32 mi northwest of Eagle.	940	--	8-03-78	499

‡ Also a crest-stage partial-record station.
a Approximately.
b Base flow.

BEST DOCUMENT AVAILABLE

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Yukon Alaska--Continued				
Kandik River	Yukon River	Lat 65°43'32", long 141°17'58", in sec.4, T.10 N., R.31 E., 0.4 mi downstream from Big Sitdown Creek, 64.5 mi north of Eagle.	490	--	6-19-78 8-04-78	1,610 193
Kandik River	Yukon River	Lat 65°32'35", long 141°37'15", in sec.6, T.8 N., R.30 E., 8.7 mi downstream from Indian Grave Creek and 53.1 mi north northwest of Eagle.	720	--	8-05-78	230
Kandik River	Yukon River	Lat 65°22'43", long 142°27'17", in sec. 6, T.6 N., R.26 E., 1.5 mi upstream from mouth, 55 mi northwest of Eagle.	1,210	--	8-04-78	344
Hess Creek	Yukon River	Lat 65°40'22", long 149°03'59", in SW¼ sec.20, T.10 N., R.7 W., upstream from Fish Creek, 18 mi northwest of Livengood.	a510	--	5-14-77	3,530
Fish Creek	Hess Creek	Lat 65°40'41", long 149°05'00", in SW¼ sec.20, T.10 N., R.7 W., at mouth 18 mi northwest of Livengood.	a150	--	5-14-77	1,230
Little Chena River	Chena River	Lat 64°51'22", long 147°24'17", in SW¼ sec.5, T.1 S., R.1 E., at mouth 500 ft downstream from Nordale Road, 7.5 mi northwest of North Pole.	a400	--	3-30-78	41
Wood River	Tanana River	Lat 64°31'25", long 148°22'00", in NE¼ sec.33, T.4 S., R.4 W., 8 mi northwest of VABM 971, 22 mi east of Nenana.	--	--	4-10-78	93
Wood River	Tanana River	Lat 64°36'25", long 148°31'15", in NE¼ sec.34, T.3 S., R.5 W., about 4 mi upstream from mouth, 17 mi east of Nenana.	--	--	4-10-78	86
Healy Creek	Nenana River	Lat 63°51'04", long 148°52'59", in NW¼NW¼ sec.26, T.12 S., R.7 W., upstream from Moody Creek, 1.6 mi upstream from mouth, and 2.5 mi east of Healy.	109	--	5-16-78	219
Moody Creek	Healy Creek	Lat 63°51'01", long 148°53'03", in NW¼NW¼ sec.26, T.12 S., R.7 W., 100 ft upstream from mouth and 2.5 mi east of Healy.	67.2	--	5-16-78	158
/Lignite Creek	Nenaga River	Lat 63°55'17", long 148°42'10", in SW¼ NW¼NE¼ sec.34, T.11 S., R.6 W., 50 ft upstream from Sanderson Creek, 4.7 mi northeast of Usibelli Coal Mine and 9.1 mi northeast of Healy.	8.37	1977	11-01-77 9-07-78	5.4 6.5
/Lignite Creek	Nenana River	Lat 63°54'53", long 148°42'37", in SW¼ NE¼SW¼ sec.34, T.11 S., R.6 W., 0.5 mi downstream from Sanderson Creek, 4.2 mi northeast of Usibelli Coal Mine, and 8.7 mi northeast of Healy.	15.6	1977	11-01-77 5-12-78 9-07-78	6.7 29 12
Jim River	South Fork Koyukuk River	Lat 66°53'05", long 150°31'18", in SE¼ sec.23, T.24 N., R.14 W., at bridge on the TAPS haulroad, 400 ft downstream from TAPS pipeline crossing, and 6.3 mi northeast of pump station 5.	223	--	5-10-75 10-07-77 5-25-78 7-15-78 8-10-78	267 275 368 198 88
Jim River	South Fork Koyukuk River	Lat 66°47'37", long 150°43'45", in NE¼ sec.26, T.23 N., R.15 W., at Prospect Camp and 2.2 mi southwest of pump station 5.	--	--	5-15-75	886
‡15564884 Prospect Creek	Jim River	Lat 66°46'56", long 150°41'06", in NW¼ sec.31, T.23 N., R.14 W., at bridge on the TAPS haul road, 0.4 mi downstream from TAPS pipeline crossing, 1.5 mi upstream from mouth, and 2.1 mi south of pump station 5.	110	--	5-10-75 5-15-75 8-24-75 5-13-76 6-19-76 9-14-76 8-19-77 7-15-78	412 369 47 273 101 64 172 76
Jim River	South Fork Koyukuk River	Lat 66°47'29", long 150°44'42", in NW¼ sec.26, T.23 N., R.15 W., 500 ft downstream from Prospect Creek, and 2.6 mi southwest of pump station 5.	--	--	5-14-75	2,680

/ See analyses of samples collected at miscellaneous sites.
‡ Also a crest-stage partial-record station.
a Approximately.

BEST DOCUMENT AVAILABLE

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Yukon Alaska--Continued				
15564885 Jim River near Bettles	South Fork	Lat 66°47'10", long 150°52'23", in SW¼ sec.30, T.23 N., R.15 W., 4.8 mi downstream from Prospect Creek, 12.3 mi upstream from mouth, 6 mi west of pump station 5, and 20 mi southeast of Bettles.	465	#1970-77	10-08-77 3-16-78	578 39
		Northwest Alaska				
Sadie Creek	Kotzebue Sound	Lat 66°48'39", long 162°32'51", in SW¼ SW¼ sec.3, T.16 N., R.18 W., at mouth, 6 mi south of Kotzebue.	--	--	9-27-78	264
/Noatak River	Kotzebue Sound	Lat 67°44'16", long 156°13'30", in sec. 17, T.27 N., R.12 E., 3.5 mi downstream from Ipnelivik River, 51 mi north of Bornite, and at mile 373.	1,030	--	4-11-78 8- 9-78	6.6 997
/Midas Creek	Noatak River	Lat 67°51'15", long 156°25'27", in sec.5, T.28 N., R.11 E., 1 mi upstream from mouth at Noatak River mile 363, 57 mi north of Bornite.	204	--	8-11-78	179
•Unnamed Spring	Noatak River	Lat 67°51'24", long 157°28'48", in sec.2, T.28 N., R.6 E., mouth of tributary from spring 3.5 mi upstream from Noatak River, 5 mi northeast of Akiknaak Peaks, and 53 mi north of Ambler.	--	--	4-11-78	18
Noatak River	Kotzebue Sound	Lat 67°54'42", long 157°27'06", in sec.18, T.29 N., R.6 E., 3 mi upstream from Atongarak Creek, 59 mi north of Ambler.	--	--	4-08-78	No flow
Noatak River	Kotzebue Sound	Lat 67°54'27", long 158°10'18", in sec.34, T.29 N., R.3 E., 7 mi upstream from Cutler River, 56 mi north of Ambler.	--	--	4-07-78	No flow
/Noatak River	Kotzebue Sound	Lat 67°51'50", long 158°13'40", in sec. 32, T.29 N., R.3 E., 4 mi upstream from Cutler River, 55 mi north of Ambler, and at mile 280.	3,420	--	8-14-78	2,310
/Cutler River	Noatak River	Lat 67°50'54", long 158°19'20", in sec. 12, T.28 N., R.2 E., 1.0 mi upstream from mouth at Noatak River mile 275, and 54 mi north of Ambler.	1,100	--	4-07-78 8-15-78	No flow 468
/Makpik Creek	Noatak River	Lat 68°01'39", long 158°38'04", in sec.3, T.30 N., R.1 E., 0.2 mi upstream from mouth at Noatak River mile 239, and 68 mi northwest of Ambler.	270	--	8-16-78	125
/Noatak River	Kotzebue Sound	Lat 68°01'40", long 158°55'35", in sec. 4, T.30 N., R.1 W., 1 mi upstream from Anisak River, 71 mi northwest of Ambler, and at mile 234.	4,960	--	8-17-78	2,690
/Anisak River	Noatak River	Lat 68°02'40", long 158°57'00", in sec. 32, T.31 N., R.1 W., 0.2 mi upstream from mouth, 72 mi northwest of Ambler, and at mile 231 of Noatak River.	805	--	8-18-78	390
/Noatak River	Kotzebue Sound	Lat 68°02'11", long 159°02'36", in sec. 2, T.30 N., R.2 W., 3.5 mi downstream from Anisak River, 75 mi northwest of Ambler and at mile 228.	5,780	--	4-06-78	0.82
/Nimiuktuk River	Noatak River	Lat 68°12'57", long 159°55'23", in sec. 36, T.33 N., R.6 W., 1 mi downstream from Tumik Creek, 5 mi upstream from mouth at Noatak River mile 197, and 73 mi north of Klery Creek.	520	--	4-07-78 8-20-78	12 771
Noatak River	Kotzebue Sound	Lat 68°03'42", long 160°08'06", in sec.30, T.31 N., R.6 W., 8 mi downstream from Nimiuktuk River, 62 mi north of Klery Creek.	--	--	4-08-78	No flow
/Noatak River	Kotzebue Sound	Lat 68°00'24", long 160°11'00", in sec. 14, T.30 N., R.7 W., 12 mi downstream from Nimiuktuk River, 58 mi north of Klery Creek, and at mile 190.	6,750	--	8-21-78	3,980

# Operated as a continuous record station.
/ See analyses of samples collected at miscellaneous sites.
• See quality of ground water.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Northwest Alaska--Continued				
/Noatak River	Kotzebue Sound	Lat 67°55'23", long 160°56'10", in sec. 10, T.29 N., R.10 W., in downstream reack of Grand Canyon, 2 mi upstream from Caluktavik River, 54 mi north of Klery Creek, 61 mi northeast of Noatak, and at mile 160.	7,800	--	8-22-78	7,910
Noatak River	Kotzebue Sound	Lat 68°00'18", long 161°19'06", in Sec. 13, T.30 N., R.12 W., 54 mi northeast of Noatak.	--	--	4-11-78	No flow
/Noatak River	Kotzebue Sound	Lat 67°57'54", long 161°36'40", in sec. 27, T.30 N., R.13 W., in upstream reach of Noatak Canyon, 46 mi northeast of Noatak, and at mile 130.	8,460	--	8-23-78	10,200
/Lake Tulugak Outlet	Noatak River	Lat 67°57'45", long 161°44'20", in sec.31, T.30 N., R.13 W., 1.5 mi upstream from mouth, 42 mi northeast of Noatak.	--	--	8-24-78	1
/Kugururok River	Noatak River	Lat 68°13'17", long 161°29'14", in sec. 32, T.33 N., R.12 W., 4.5 mi upstream from Trail Creek, 60 mi northeast of Noatak.	440	--	4-10-78	11
/Kugururok River	Noatak River	Lat 68°01'24", long 161°50'08", in sec.3, T.30 N., R.14 W., 3.5 mi upstream from mouth at Noatak River mile 119, and 43 mi northeast of Noatak.	860	--	4-02-78	35
/Noatak River	Kotzebue Sound	Lat 67°56'48", long 162°02'04", in sec. 2, T.29 N., R.15 W., 4 mi downstream from Kugururok River, 36 mi northeast of Noatak, and at mile 115.	9,560	--	4--1-78	46
/Noatak River	Kotzebue Sound	Lat 67°49'13", long 162°41'50", in sec.15, T.28 N., R.18 W., 13 mi downstream from Kelly River, 19 mi north of Noatak, and at mile 80.	10,510	--	8-26-78	12,700
/Noatak River	Kotzebue Sound	Lat 67°28'04", long 163°04'48", in sec.22, T.24 N., R.20 W., 4 mi upstream from Eli River, 8 mi downstream from Noatak, and at mile 60.	10,890	--	4-03-78	88
/Eli River	Noatak River	Lat 67°25'28", long 162°59'05", in sec. 6, T.23 N., R.19 W., 1 mi upstream from mouth at Noatak River mile 56, 10 mi south of Noatak.	510	--	4-04-78	25
+Unnamed Spring	Noatak River	Lat 67°14'36", long 162°48'15", in SW¼ sec.1, T.21 N., R.19 W., spring on right bank, 0.5 mi south of Noatak River, 5.5 mi upstream from Agashashok River, and 24 mi southeast of Noatak.	--	--	4-03-78	9.5
		Arctic Slope Alaska				
/Inaru River below Kucheak Creek near Barrow	Admiralty Bay	Lat 70°45'45", long 157°13'02", 38 mi south of Barrow.	--	--	4-20-78	No flow
/Inaru River below Niklavik Creek near Barrow	Admiralty Bay	Lat 70°53'28", long 156°46'42", 28 mi south of Barrow.	--	--	4-20-78	No flow
15803000 Meade River at Atkasook	Admiralty Bay	Lat 70°29'20", long 157°24'40", at Atkasuk, 3 mi upstream from Usuktuk River and 60 mi south of Barrow.	a1,800	1977	6-14-78	5,020
/Meade River at Delta near Barrow	Admiralty Bay	Lat 70°49'12", long 156°31'36", 33 mi south of Barrow	--	--	4-21-78	No flow
/Chipp River near Barrow	Admiralty Bay	Lat 70°41'35", long 155°27'00", 52 mi southeast of Barrow.	--	--	4-22-78	No flow
/15875000 Colville River near umiat	Beaufort Sea	Lat 69°21'45", long 152°05'40", 1 mi east of Umiat.	--	1953	4-25-78	No flow

/ See analyses of samples collected at miscellaneous sites.
+ See quality of ground water.
a Approximately.

SOUTH-CENTRAL ALASKA

Measurements of lake levels of selected lakes are given in the following table. Data are being collected at these lakes to define lake level changes from seasonal variations, the effects of man, response to droughts and response to changes in the ground-water system. Lake levels are referenced to an arbitrary gage datum and may not be at National Geodetic Vertical Datum.

					Measurements	
Lake	Tributary to	Location	Surface area (acres)	Measured previously (water year)	Date	Lake Level (ft)
		Kenai Peninsula Borough				
Shadura	Closed lake in Beaver Creek basin	Lat 60°42'17", long 151°00'12", in NE¼ sec.15, T.7 N., R.10 W., at north shore, 13 mi northeast of Kenai.	258	1970-71, 1976,1977	10-05-77 5-11-78	16.36 16.37
/Konovalof	Closed Lake in Beaver Creek basin	Lat 60°39'49', long 151°09'52", in SW¼ sec.26, T.7 N., R.11 W., at south shore of island near north shore of lake, 8.5 mi northeast of Kenai.	256	1970-71, 1976,1977	10-05-77 5-11-78	17.26 16.85
/Kidney	Closed lake	Lat 60°39'48", long 151°15'35", in SW¼ sec.29, T.7 N., R.11 W., at the eastern shore, 0.2 mi north of Lamplighter Holt Road, and 7.5 mi north of Kenai. (Correction to previous water levels +92.01 ft.)	71	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*104.65 *103.87
/Cabin	Closed lake	Lat 60°40'30", long 151°19'15", in NE¼ sec.26, T.7 N., R.12 W., at the eastern shore, 0.2 mi west of Miller Loop Road, and 8.5 mi north of Kenai. (Correction to previous water levels +83.77 ft.)	53	+1970-72, +1974-76, 1977	10-05-77 5-11-78 8-17-77	*95.41 *94.18 *95.34
/Dog Bone	Closed lake	Lat 60°41'42", long 151°17'35", in SE¼ sec.13, T.7 N., R.12 W., at the western shore, 0.9 mi east of Island Lake Road, and 9.7 mi north of Kenai. (Correction to previous water levels +96.18 ft.)	27	+1970-72, +1974-76, 1977	10-04-77	*101.90
/Island	Closed lake	Lat 60°42'19", long 151°19'05", in SE¼ sec.11, T.7 N., R.12 W., at the western shore, 0.1 mi east of Island Lake Road, and 10.7 mi north of Kenai. (Correction to previous water levels +87.77 ft.)	272	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*100.00 *99.33
Unnamed Lake	Closed lake	Lat 60°40'56", long 151°20'54", in SW¼ sec.23, T.7 N., R.12 W., at the southern shore, 0.4 mi north of Miller Loop Road, and 9.4 mi north of Kenai. (Correction to previous water levels +84.54 ft.)	8.6	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*96.36 *95.47
/Douglas	Closed lake	Lat 60°40'27", long 151°13'20", in NW¼ sec.28, T.7 N., R.11 W., at the northern shore, 0.8 mi east of Lamplighter Holt Road, and 8.3 mi north of Kenai. (Correction to previous water levels +92.58 ft.)	90	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*108.80 *108.36
/Wick	Closed lake	Lat 60°43'06", long 151°14'35", in NE¼ sec.8, T.7 N., R.11 W., at the northern shore, 0.2 mi south of Lamplighter Holt Road, and 11.4 mi north of Kenai. (Correction to previous water levels +91.63 ft.)	173	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*107.82 *106.77
/Laura	Closed lake	Lat 60°43'44", long 151°13'15", in NW¼ sec.4, T.7 N., R.11 W., at the northwestern shore, 0.3 mi southeast of Halbouty Road, and 12.1 mi north of Kenai. (Correction to previous water levels +102.68 ft.)	41	+1970-72, +1974-76, 1977	10-04-77 5-11-78	*108.06 *107.38
/Daniels	Bishop Creek	Lat 60°44'25", long 151°10'27", in SW¼ sec.34, T.8 N., R.11 W., at northwest shore, 1.2 mi east of North Kenai Road, and 13 mi north of Kenai. (Correction to previous water levels +69.16 ft.)	602	+1970-72, +1976,1977	10-04-77 5-11-78	*86.86 *86.37
		Municipality of Anchorage				
Sand	Closed lake	Lat 61°09'03", long 149°58'25", in NW¼ sec.10, T.12 N., R.4 W., at western shore, 4.0 mi southwest of Spenard. (Station number 15274700.)	78	#1967-74, 1975-76, 1977	5-17-78 6-13-78 7-14-78 8-15-78 9-18-78	*84.67 *84.43 *84.51 *84.39 *84.36

/ See analyses of samples collected at miscellaneous sites.
+ Published at different datum.
* Gage datum is National Geodetic Vertical Datum. See location for datum correction to previously published lake levels.
# Operated as a daily stage station during open water with occasional readings during rest of year.

SOUTH-CENTRAL ALASKA

Lake	Tributary to	Location	Surface area (acres)	Measured Previously (water year)	Measurements	
					Date	Lake Level (ft)
		Municipality of Anchorage--Continued				
Campbell Point	Closed lake	Lat 61°09'49", long 150°01'20", in NE¼ sec.5, T.12 N., R.4 W., in Kincaid Park near Anchorage International Airport, at the northeast shore, 11.9 mi southwest of Spenard.	11	1975,1977	9-28-78	67.3
Jewel	Closed lake	Lat 61°08'23", long 149°57'41", in SE¼ sec.10, T.12 N., R.4 W., at public swimming area on northeast shore, 4.2 mi southwest of Spenard.	27	1974-75, 1977	9-26-78	90.2
Sundi	Closed lake	Lat 61°08'50", long 149°57'55", in NE¼ sec.10, T.12 N., R.4 W., at northeast shore, 3.9 mi southwest of Spenard.	8.8	1974-75, 1977	9-26-78	89.0
Goose	Closed lake	Lat 61°11'48", long 149°49'06", in SE¼ sec.21, T.12 N., R.3 W., at the northern shore, and 2.9 mi southeast of Anchorage Post Office.	18	+1958-64, +1969-72, +1975,1977	9-28-78	19.3
Lake Otis	Closed lake	Lat 61°11'27", long 149°50'18", in NE¼ sec.29, T.13 N., R.2 W., at the southeastern shore, and 2.6 mi southeast of Anchorage Post Office.	9.0	+1958-59, 1969-73, 1975,1977	9-28-78	16.1
		Matanuska-Susitna Borough				
Finger	Closed lake	Lat 61°36'47", long 149°15'32", in NW¼ sec.34, T.18 N., R.1 E., at the northeastern shore north of Wasilla Road, and 4.5 mi west of Palmer.	--	--	5-04-78 9-27-78	12.87 12.44
Kings	Closed lake	Lat 61°37'13", long 149°21'35", in SW¼ sec.25, T.18 N., R.1 W., at the northwestern shore at King's Lake Camp and 4 mi northeast of Wasilla.	--	--	5-04-78 9-27-78	18.42 18.06
Memory	Closed lake	Lat 61°37'52", long 149°25'37", in SE¼ sec.22, T.18 N., R.1 W., at the northwest shore at the Menard residence (Laze C&L Ranch) and 3.5 mi northeast of Wasilla.	--	--	5-04-78 9-27-78	5.37 5.18
Rocky	Closed lake	Lat 61°33'27", long 149°49'49", in SW¼ sec.16, T.17 N., R.3 W., at the southwestern shore in Rocky Lake Wayside, north of Big Lake, and 5.5 mi south of Houston.	--	--	5-04-78 9-28-78	9.22 8.86
Big	Fish Creek	Lat 61°32'04", long 149°49'30", in SE¼ sec.28, T.17 N., R.3 W., head of Fish Creek at lake outlet, on left bank upstream from square notched weir upstream from bridge on Big Lake Road, and 13 mi southwest of Wasilla. (Station number 15287000.)	3,104	1972-77	5-17-78 7-10-78 8-06-78 9-20-78	10.32 10.32 10.20 10.18
Marion	Closed lake	Lat 61°30'42", long 149°55'05", in NW¼ sec.1, T.16 N., R.4 W., at northwestern shore, west of Big Lake Road and south of Big Lake, and 7.5 mi northwest of Knik.	--	--	5-04-78 9-28-78	6.68 5.46
Horseshoe	Little Susitna River	Lat 61°21'50", long 150°09'20", in NW¼ sec.27, T.15 N., R.5 W., at the northwest shore at Oren Hudson's cabin and 15 mi northwest of Anchorage.	--	--	8-01-78	3.36
Lynne	Closed lake	Lat 61°42'41", long 150°01'52", in NE¼ sec.29, T.19 N., R.4 W., at the northeast shore, northeast of Nancy Lake, and 2.5 mi southeast of Willow.	--	--	5-09-78 9-28-78	11.27 10.87
/Nancy	Lake Creek	Lat 61°42'09", long 150°00'20", in SE¼ sec.28, T.18 N., R.4 W., at the northeast shore and 3 mi south of Willow.	--	--	5-04-78 9-28-78	7.01 6.40
Twelvemile	Closed lake	Lat 61°46'19", long 149°42'42", in NW¼ sec.6, T.19 N., R.2 W., at the northeast shore, south of Willow Creek Road and 11 mi east of Willow.	--	--	5-05-78 9-28-78	18.81 18.66
Willow	Closed lake	Lat 61°44'39", long 150°03'08", in NW¼ sec.17, T.19 N., R.4 W., at the southeast shore and 0.5 mi west of Willow.	--	--	5-05-78 9-28-78	13.00 13.30
Scotty	Ninemile Creek	Lat 62°19'05", long 150°19'20", head of Ninemile Creek, 0.1 mi north of Petersville Road, 0.3 mi south of outlet, and 7 mi west of Talkeetna. (Station number 15294030.)	224	1972-77	5-17-78 7-10-78 8-06-78 9-22-78	8.63 8.93 8.47 8.17

+ Published at different datum.
/ See analysis of samples collected at miscellaneous sites.

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Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

SOUTHEAST ALASKA

#15101500 - GREENS C NR JUNEAU AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 18...	1350	108	110	7.0	10.0	57	17	18	2.9	1.4	.1

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
AUG 18...	49	0	11	1.0	.0	4.0	63	.05	1	100	0

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
AUG 18...	10	5	270	60	20	10	.1	1	0	20

/15106100 - BLACK R NR PELICAN AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
MAR 30...	1100	106	84	7.4	5.0

# STREAM-GAGING STATION ESTABLISHED LATER AT THIS SITE
/ STREAM-GAGING STATION FOR WHICH DISCHARGE WAS NOT PUBLISHED

†*15240000 - ANCHOR R AT ANCHOR POINT AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
AUG 16...	1000	111	100	12.5	22	46	2	12	3.8	4.8	1.8	53
SEP 13...	1715	326	95	9.0	--	28	0	5.8	3.4	5.2	1.7	--

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 16...	2.8	3.5	.1	26	82	82	.12	--	.04	980	770	40
SEP 13...	1.4	3.7	.1	29	75	72	.46	.07	--	2700	460	30

*15240300 - STARISKI C NR ANCHOR POINT AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
AUG 16...	1600	22	95	12.5	34	40	0	10	3.6	5.0	1.7	51
SEP 13...	1530	40	90	9.5	--	31	0	7.0	3.3	6.3	1.7	45

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 16...	3.1	3.5	.1	20	76	74	.12	--	.05	1500	1000	70
SEP 13...	1.8	3.7	.0	25	--	71	.02	.04	--	1800	740	80

† DISCONTINUED GAGING STATION
* LOW-FLOW PARTIAL-RECORD STATION

SOUTH-CENTRAL ALASKA--Continued

* 15241500 - DEEP C NR NINILCHIK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
AUG												
15...	2000	125	85	14.5	11	41	0	10	3.8	3.5	1.6	49
SEP												
13...	1400	370	95	8.5	--	27	0	5.5	3.2	4.2	1.4	43

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG												
15...	2.3	1.7	.1	27	75	75	.06	--	.03	630	410	20
SEP												
13...	1.0	2.0	.0	26	71	79	.23	.04	--	3600	290	30

* 15242100 - CROOKED C NR KASILOF AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
AUG												
15...	1500	33	95	12.5	26	52	4	13	4.7	3.8	2.0	58
SEP												
13...	1000	58	95	7.5	--	38	0	7.6	4.5	4.5	2.1	52

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG												
15...	4.0	1.6	.1	31	86	90	.13	--	.01	1300	700	90
SEP												
13...	1.6	2.3	.1	32	99	81	.16	.02	--	1300	460	150

‡ 15254000 - CRESCENT C NR COOPER LANDING AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
JUL				
13...	1735	156	77	9.5
SEP				
13...	1915	201	73	8.0

* LOW-FLOW PARTIAL-RECORD STATION
‡ DISCONTINUED GAGING STATION AND CREST-STAGE GAGE PARTIAL-RECORD STATION

BEST DOCUMENT AVAILABLE

SOUTH-CENTRAL ALASKA--Continued

+15271900 - CUB C NR SUNRISE AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
SEP 14...	1000	18	87	6.0

+* 15290200 - NANCY LK TR NR WILLOW AK

DATE	TIME	SAMPLING DEPTH (FT)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 22...	1830	1.0	.85	174	7.1	12.0	30	9.8	K6	K9	23

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
AUG 22...	63	5	19	3.8	10	1.0	71	0	2.3	14	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
AUG 22...	12	112	99	.12	.14	.01	.08	.35	.48	.36	.48

DATE	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
AUG 22...	.48	.03	.03	.01	0	3	200	0	4	930	690

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
AUG 22...	120	120	.1	5	2	0	0	0	.2	.020	.000

+ CREST-STAGE GAGE PARTIAL-RECORD STATION
* LOW-FLOW PARTIAL RECORD STATION
K NON-IDEAL COLONY COUNT

SOUTH-CENTRAL ALASKA--Continued

*623157150482700 - PETERS C NR PETERSVILLE AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 07...	1200	97	45	7.3	3.0	25	0	29	7.6
JUL 31...	2130	66	40	6.6	14.0	E20	0	16	2.9

*15294310 - PETERS C AB MARTIN C AT PETERS CREEK AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 07...	1430	167	42	7.2	4.0	8	19	1	5.0	1.6	1.4
AUG 01...	1030	102	50	6.4	13.0	--	22	1	5.7	1.9	1.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT 07...	.2	22	0	3.1	.4	.1	7.9	35	31	.01
AUG 01...	.2	25	0	2.9	.5	.1	7.0	28	34	.34

DATE	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 07...	.01	--	--	--	--	--	--	--	170	--
AUG 01...	--	0	2	100	0	0	3	780	160	6

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 07...	--	50	--	--	--	--	--	--	7	3.2
AUG 01...	40	30	.0	3	4	0	0	0	9	2.5

* LOW-FLOW PARTIAL-RECORD
E ESTIMATED

SOUTH-CENTRAL ALASKA--Continued

*611946151372600 - CAPPS C NR TYONEK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
OCT 18...	1400	28	45	.0	--	--	--	--	--	--	--	--
MAY 11...	1400	50	35	1.0	--	--	--	--	--	--	--	--
JUN 20...	1215	89	25	8.5	--	--	--	--	--	--	--	--
JUL 17...	1330	39	35	10.5	--	--	--	--	--	--	--	--
AUG 14...	1400	16	45	12.0	13	24	4	7.1	1.4	2.5	.6	24
SEP 12...	1305	63	--	8.0	--	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	3.5	.5	.1	14	41	42	.08	40	1	200	0	4
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 18...	--	--	--	--	--	--	--	--	--	--	11	.83
MAY 11...	--	--	--	--	--	--	--	--	--	--	448	60
JUN 20...	--	--	--	--	--	--	--	--	--	--	69	17
JUL 17...	--	--	--	--	--	--	--	--	--	--	6	.63
AUG 14...	540	410	40	40	.0	5	3	0	0	10	3	.13
SEP 12...	--	--	--	--	--	--	--	--	--	--	88	15

*611823151302700 - BISHOP C NR TYONEK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 18...	1430	19	42	.0	7	.36
MAY 11...	1425	131	28	1.0	113	40
JUN 20...	1315	28	35	12.0	6	.45
JUL 17...	1425	27	35	11.0	3	.22
SEP 12...	1405	28	--	8.0	10	.76

* LOW-FLOW PARTIAL-RECORD STATION

SOUTH-CENTRAL ALASKA--Continued

*611152151392000 - CHUITNA R BL WOLVERINE F NR TYONEK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 11...	1245	140	--	.0	19	7.2
JUN 20...	1115	105	<25	8.0	6	1.7
JUL 17...	1235	73	25	10.0	1	.20
SEP 12...	1210	135	--	8.0	24	8.7

*610916151301100 - CHUITNA R AB CHUIT C NR TYONEK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
OCT 18...	1045	36	28	.0	--	--	--	--	--	--	--	--
MAY 11...	1030	252	--	1.0	--	--	--	--	--	--	--	--
JUN 20...	1000	182	25	7.0	--	--	--	--	--	--	--	--
JUL 17...	1045	136	30	10.0	--	--	--	--	--	--	--	--
AUG 14...	1100	55	45	12.5	5	21	1	5.7	1.6	2.6	.5	24
SEP 12...	1020	138	--	8.5	--	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	3.4	.8	.1	14	39	41	.02	60	0	200	0	6
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 18...	--	--	--	--	--	--	--	--	--	--	0	.00
MAY 11...	--	--	--	--	--	--	--	--	--	--	E130	61
JUN 20...	--	--	--	--	--	--	--	--	--	--	13	6.4
JUL 17...	--	--	--	--	--	--	--	--	--	--	5	1.8
AUG 14...	200	130	10	10	.0	4	4	0	0	10	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	62	23

* LOW-FLOW PARTIAL-RECORD STATIONS
E ESTIMATED

*611244151335400 - CHUIT C 5.4 MI AB MOUTH NR TYONEK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
18...	1100	21	35	.0	1	.06
MAY						
11...	1140	72	--	.0	8	1.6
JUN						
20...	1020	34	<25	9.0	2	.18
JUL						
17...	1140	29	25	10.0	1	.08
SEP						
12...	1120	48	--	8.0	16	2.1

*610918151301100 - CHUIT C AT MOUTH NR TYONEK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
18...	0930	21	40	.0	0	.00
MAY						
11...	0945	189	<25	1.0	31	16
JUN						
20...	0915	79	25	7.0	3	.64
JUL						
17...	1000	68	<25	9.5	2	.37
SEP						
12...	0935	33	--	8.5	6	.53

* LOW-FLOW PARTIAL-RECORD STATIONS

BEST DOCUMENT AVAILABLE

YUKON ALASKA

635300148382000 - HEALY C NR USIBELLI AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 01...	1300	60	440	7.5	.0	180	0	274	87	14
MAY 11...	1715	--	280	7.8	4.0	130	0	--	--	--
SEP 07...	1700	87	450	7.9	7.0	166	0	272	22	5.2

635247148403700 - COAL C NR USIBELLI AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 01...	1130	10	830	7.9	.0	--	--	--	--
MAY 11...	1615	30	380	7.8	.0	--	--	--	--
SEP 06...	1500	20	730	8.0	9.0	3	440	160	54

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 01...	--	--	--	394	0	--	--	--	--
MAY 11...	--	--	--	186	0	--	--	--	--
SEP 06...	73	3.7	1.4	337	0	140	1.3	.1	2.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 01...	570	--	--	--	--	--	34	.95
MAY 11...	282	--	--	--	--	--	77	0.92
SEP 06...	460	444	.40	.00	20	10	2	.11

YUKON ALASKA--Continued

635245148440600 - CRIPPLE C NR USIBELLI AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 01...	1030	2.8	875	7.6	.0	--	--	--	--
MAY 11...	1450	10	280	7.6	.5	--	--	--	--
SEP 06...	1400	6.9	700	8.6	9.0	4	450	160	58

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 01...	--	--	--	380	0	--	--	--	--
MAY 11...	--	--	--	170	0	--	--	--	--
SEP 06...	73	4.2	1.7	324	16	170	.8	.1	3.3

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 01...	636	--	--	--	--	--	57	.45
MAY 11...	180	--	--	--	--	--	1220	59
SEP 06...	509	489	.46	.00	130	30	82	1.5

635110148503700 - HEALY C AT SUNTRANA AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 01...	0900	74	562	7.6	.0	286	0	365
MAY 11...	1230	--	375	8.0	5.0	156	0	216
SEP 06...	1600	133	538	7.7	10.0	210	0	329

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 01...	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--
SEP 06...	400	1	0	2	10	4	1800	8	60

635110148503700 - HEALY C AT SUNTRANA AK--Continued

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 01...	--	--	--	--	--	--	23	4.1
MAY 11...	--	--	--	--	--	--	--	--
SEP 06...	.1	6	6	0	2	10	329	118

635426148581700 - LIGNITE C NR HEALY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 31...	1430	16	750	6.9	.0	170	0	437	164	7.2
MAY 12...	0845	--	355	7.4	.0	90	0	240	--	--
SEP 07...	1000	21	612	7.6	7.0	164	0	361	381	22

ARCTIC SLOPE ALASKA

†15803000 - MEADE RIVER AT ATKASUK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN											
07...	2300	--	--	33	6.3	4.0	.0	40	55	13.2	--
08...	2345	--	E18800	33	6.1	2.5	.5	40	60	13.2	--
09...	1900	--	E16300	34	6.8	7.0	2.0	40	50	12.9	--
10...	2245	--	E13200	39	7.0	5.5	3.0	45	50	12.4	133
11...	2225	--	E11400	40	7.0	5.0	4.0	40	65	12.0	--
12...	2000	--	E9500	44	6.7	5.5	3.5	40	75	12.2	>80
13...	2100	--	E7200	45	6.9	3.0	4.0	40	75	12.4	--
14...	1415	--	4990	50	7.1	6.5	5.0	60	80	12.1	--
14...	2200	125	4990	50	--	--	6.0	--	--	--	--
14...	2201	180	--	50	--	--	6.0	--	--	--	--
14...	2202	240	--	51	--	--	5.5	--	--	--	--
14...	2203	310	--	53	--	--	5.5	--	--	--	--
15...	1400	--	E4400	53	6.8	6.0	5.5	40	55	12.0	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
JUN											
07...	--	--	--	0	0	0	22	8	.0	--	--
08...	--	--	8	0	--	--	--	--	--	72	3650
09...	--	--	14	0	--	--	--	--	--	105	4620
10...	<4	K12	18	0	--	--	--	--	--	80	2850
11...	--	--	20	0	--	--	--	--	--	89	2740
12...	K8	K5	20	0	10	0	25	4	.0	86	2210
13...	--	--	22	0	--	--	--	--	--	67	1300
14...	--	--	25	0	--	--	--	--	--	56	754
14...	--	--	--	--	1	4	72	30	.0	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	26	0	--	--	--	--	--	42	499

†15830000 - MIGUAKIAK RIVER NEAR TESHEKPUK LAKE NR LONELY AK

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
APR										
24...	0915	.00	685	7.5	.0	2	6.2	<1	<1	260

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
APR									
24...	18	82	14	41	2.6	295	0	7.9	81

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
24...	.0	1.6	401	381	.35	.01	30	0	4.0

† DISCONTINUED GAGING STATION
E ESTIMATED
K NON-IDEAL COLONY COUNT

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

SOUTHEAST ALASKA

15011860 - KETA R AB HILL C NR KETCHIKAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT												
06...	1130	1/80020	207	22	--	--	4.5	8	12.9	2	8	2
06...	1131	2/ 9815	207	--	--	--	--	--	--	--	--	--
NOV												
30...	1500	80020	289	24	6.4	--	2.0	6	--	7	9	6
FEB												
01...	1600	80020	64	32	6.3	--	.5	1	12.9	9	10	1
01...	1601	9815	64	--	--	--	--	--	--	--	--	--
MAY												
25...	1400	80020	594	25	6.0	12.0	5.0	2	12.4	9	6	1
25...	1401	9815	594	--	--	--	--	--	--	--	--	--
SEP												
13...	1000	80020	460	30	6.3	--	9.5	5	9.6	ND	8	0
13...	1001	9815	460	--	--	--	--	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
06...	3.2	.1	.5	.3	8	0	1.9	.6	.0	2.5	16	14
06...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	2.9	.3	.6	.2	4	0	3.0	1.2	.0	3.0	15	14
FEB												
01...	3.7	.2	.5	.3	11	0	1.2	.6	.1	3.8	15	16
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
25...	2.2	.1	.4	.1	6	0	4.7	1.0	.0	2.0	10	14
25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	3.0	.0	.6	.2	9	0	2.6	.3	.0	3.0	14	15
13...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT												
06...	.10	--	--	--	--	.02	--	--	--	--	--	--
06...	--	--	--	--	--	--	ND	0	--	ND	0	ND
NOV												
30...	.10	.00	.01	.01	.00	.00	1	--	600	0	--	0
FEB												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	<5	2	--	<1	0	ND
MAY												
25...	.03	--	--	--	--	.01	--	--	--	--	--	--
25...	--	--	--	--	--	--	ND	1	--	ND	1	ND
SEP												
13...	.05	--	--	--	--	.01	--	--	--	--	--	--
13...	--	--	--	--	--	--	ND	ND	--	<1	0	7

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

15011860 - KETA R AB HILL C NR KETCHIKAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, DIS-SOLVED (UG/L AS NI)
OCT												
06...	--	--	--	50	--	--	--	0	--	--	--	--
06...	0	ND	3	--	3000	ND	0	--	ND	ND	ND	ND
NOV												
30...	--	1	--	60	--	1	--	4	--	0	--	--
FEB												
01...	--	--	--	40	--	--	--	0	--	--	--	--
01...	ND	ND	--	--	--	<5	0	--	ND	ND	ND	ND
MAY												
25...	--	--	--	20	--	--	--	0	--	--	--	--
25...	ND	ND	3	--	1300	ND	2	--	--	ND	ND	ND
SEP												
13...	--	--	--	110	--	--	--	10	--	--	--	--
13...	1	ND	3	--	2500	ND	1	--	--	ND	5	<10

DATE	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT												
06...	--	--	--	--	--	--	--	--	--	--	2	1.1
06...	2	--	0	--	0	3	10	--	--	.00	--	--
NOV												
30...	--	0	--	0	--	10	--	1.9	.0	.00	3	2.3
FEB												
01...	--	--	--	--	--	--	--	.8	--	--	0	.00
01...	2	--	0	--	0	2	15	--	--	.00	--	--
MAY												
25...	--	--	--	--	--	--	--	.6	.2	--	0	.00
25...	1	--	--	--	--	ND	5	--	--	--	--	--
SEP												
13...	--	--	--	--	--	--	--	3.3	.7	--	1	1.2
13...	8	--	--	--	--	<10	14	--	--	--	--	--

15011865 - HILL C AB WHITE C NR KETCHIKAN AK

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT												
08...	1545	1/80020	33	17	--	--	5.0	25	--	ND	7	5
08...	1546	2/ 9815	33	--	--	--	--	--	--	--	--	--
NOV												
29...	1330	80020	20	20	6.6	--	1.0	25	13.7	10	10	9
FEB												
02...	1415	80020	E10	29	6.5	--	.0	4	--	6	10	6
02...	1416	9815	E10	--	--	--	--	--	--	--	--	--
MAY												
24...	1530	80020	52	16	6.1	13.5	5.0	2	12.3	11	5	3
24...	1531	9815	52	--	--	--	--	--	--	--	--	--
SEP												
13...	1400	80020	47	22	6.1	--	8.0	6	10.1	<25	5	0
13...	1401	9815	47	--	--	--	--	--	--	--	--	--

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
E ESTIMATED
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTHEAST ALASKA--Continued

15011865 - HILL C AB WHITE C NR KETCHIKAN AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
08...	2.7	.1	.6	.2	3	0	3.3	.7	.0	2.7	16	12
08...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	3.7	.2	.6	.2	2	0	4.1	.9	.0	3.1	14	15
FEB												
02...	3.6	.2	.5	.3	5	0	4.8	.9	.1	3.9	15	17
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
24...	1.8	.1	.4	.1	2	0	5.1	.8	.0	2.3	6	12
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	2.0	.0	.5	.1	6	0	2.1	.3	.0	2.7	10	11
13...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT												
08...	.10	--	--	--	--	.01	--	--	--	--	--	--
08...	--	--	--	--	--	--	ND	0	--	<2	0	ND
NOV												
29...	.12	.00	.13	.13	.71	.00	1	--	500	0	--	0
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	5	--	--	ND	--	ND
MAY												
24...	.06	--	--	--	--	.01	--	--	--	--	--	--
24...	--	--	--	--	--	--	ND	1	--	<1	1	ND
SEP												
13...	.03	--	--	--	--	.00	--	--	--	--	--	--
13...	--	--	--	--	--	--	ND	0	--	ND	0	<5

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, DIS-SOLVED (UG/L AS NI)
OCT												
08...	--	--	--	60	--	--	--	0	--	--	--	--
08...	1	ND	6	--	3000	ND	0	--	ND	ND	ND	ND
NOV												
29...	--	1	--	50	--	1	--	20	--	1	--	--
FEB												
02...	--	--	--	70	--	--	--	0	--	--	--	--
02...	--	ND	--	--	--	<5	--	--	--	ND	--	ND
MAY												
24...	--	--	--	10	--	--	--	0	--	--	--	--
24...	ND	ND	4	--	1200	<5	4	--	--	ND	ND	ND
SEP												
13...	--	--	--	50	--	--	--	0	--	--	--	--
13...	1	ND	3	--	1400	ND	2	--	--	<50	13	<10

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

SOUTHEAST ALASKA--Continued

15011865 - HILL C AB WHITE C NR KETCHIKAN AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT												
08...	--	--	--	--	--	--	--	--	--	--	1	.09
08...	4	--	0	--	0	3	22	--	--	.00	--	--
NOV												
29...	--	0	--	0	--	10	--	--	.3	.00	2	.11
FEB												
02...	--	--	--	--	--	--	--	.8	--	--	1	.03
02...	--	--	--	--	--	1	--	--	--	.00	--	--
MAY												
24...	--	--	--	--	--	--	--	.5	2.0	--	0	.00
24...	1	--	--	--	--	ND	7	--	--	--	--	--
SEP												
13...	--	--	--	--	--	--	--	2.6	.1	--	9	1.1
13...	2	--	--	--	--	<10	9	--	--	--	--	--

15011875 - HILL C NR MOUTH NR KETCHIKAN AK

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT											
06...	1430	1/80020	49	31	--	5.0	7	11.9	ND	16	11
06...	1431	2/ 9815	49	--	--	--	--	--	--	--	--
NOV											
30...	1345	80020	68	29	6.9	.5	10	14.0	23	10	6
30...	1346	9815	68	--	--	--	--	--	--	--	--
FEB											
02...	1530	80020	E15	51	6.5	.0	2	--	9	18	11
02...	1531	9815	E15	--	--	--	--	--	--	--	--
MAY											
25...	1600	80020	128	21	6.3	5.0	3	12.6	13	7	5
25...	1601	9815	128	--	--	--	--	--	--	--	--
SEP											
13...	1200	80020	90	36	6.4	9.5	12	10.5	ND	8	4
13...	1201	9815	90	--	--	--	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT											
06...	6.3	.1	.8	.2	6	0	6.5	.8	.0	3.7	11
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
30...	3.6	.2	.8	.1	5	0	4.8	1.7	--	--	20
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	6.7	.4	.6	.3	9	0	10	.7	.1	5.2	19
02...	--	--	--	--	--	--	--	--	--	--	--
MAY											
25...	2.8	.1	.4	.1	3	0	6.4	.6	.0	3.0	8
25...	--	--	--	--	--	--	--	--	--	--	--
SEP											
13...	3.0	.1	.6	.1	5	0	4.9	.6	.0	3.7	16
13...	--	--	--	--	--	--	--	--	--	--	--

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
E ESTIMATED
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

SOUTHEAST ALASKA--Continued

15011875 - HILL C NR MOUTH NR KETCHIKAN AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, DISSOLVED (UG/L AS CU)
OCT										
06...	22	.07	.03	--	--	--	--	--	--	--
06...	--	--	--	ND	0	<2	0	ND	0	ND
NOV										
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	ND	--	ND	--	ND	--	ND
FEB										
02...	29	--	--	--	--	--	--	--	--	--
02...	--	--	--	ND	--	<1	--	ND	--	ND
MAY										
25...	15	.03	.03	--	--	--	--	--	--	--
25...	--	--	--	ND	2	<1	1	ND	1	ND
SEP										
13...	16	.02	.00	--	--	--	--	--	--	--
13...	--	--	--	ND	0	<1	0	<5	1	ND

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, DISSOLVED (UG/L AS NI)
OCT										
06...	--	30	--	--	--	10	--	--	--	--
06...	3	--	2000	ND	0	--	ND	ND	ND	ND
NOV										
30...	--	40	--	--	--	4	--	--	--	--
30...	--	--	--	ND	--	--	--	ND	--	ND
FEB										
02...	--	30	--	--	--	0	--	--	--	--
02...	--	--	--	<5	--	--	--	ND	--	4
MAY										
25...	--	20	--	--	--	0	--	--	--	--
25...	4	--	1900	<5	6	--	--	ND	1	ND
SEP										
13...	--	280	--	--	--	0	--	--	--	--
13...	5	--	1100	ND	1	--	--	ND	12	ND

DATE	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT										
06...	--	--	--	--	--	--	--	--	4	.53
06...	2	0	0	10	10	--	--	.00	--	--
NOV										
30...	--	--	--	--	--	--	--	--	1	.01
30...	--	--	--	10	--	--	--	.00	--	--
FEB										
02...	--	--	--	--	--	1.1	--	--	0	.00
02...	--	--	--	2	--	--	--	.00	--	--
MAY										
25...	--	--	--	--	--	.7	.2	--	0	.00
25...	2	--	--	13	9	--	--	--	--	--
SEP										
13...	--	--	--	--	--	3.3	.1	--	1	.24
13...	2	--	--	<10	9	--	--	--	--	--

ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTHEAST ALASKA--Continued

15011890 - BEAVER CREEK NEAR KETCHIKAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)
MAY										
24...	1700	1/80020	36	24	6.2	13.5	6.5	5	11.8	6
24...	1701	2/ 9815	36	--	--	--	--	--	--	--
SEP										
13...	1530	80020	6.6	48	6.3	--	10.0	10	9.8	ND
13...	1531	9815	6.6	--	--	--	--	--	--	--

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY										
24...	8	6	3.0	.1	.6	.1	2	0	9.1	.6
24...	--	--	--	--	--	--	--	--	--	--
SEP										
13...	12	5	4.6	.1	2.6	.2	8	0	9.4	.7
13...	--	--	--	--	--	--	--	--	--	--

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)
MAY										
24...	.0	2.8	12	17	.01	.01	--	--	--	--
24...	--	--	--	--	--	--	ND	4	ND	4
SEP										
13...	.0	4.2	22	26	.00	.00	--	--	--	--
13...	--	--	--	--	--	--	ND	0	ND	0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
MAY										
24...	--	--	--	--	50	--	--	--	0	--
24...	ND	2	ND	4	--	5300	ND	4	--	ND
SEP										
13...	--	--	--	--	80	--	--	--	0	--
13...	ND	2	ND	3	--	2700	ND	1	--	ND

DATE	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	NICKEL, DIS- SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
MAY									
24...	--	--	--	--	--	.9	2.1	0	.00
24...	ND	ND	4	ND	15	--	--	--	--
SEP									
13...	--	--	--	--	--	3.5	.2	1	.02
13...	5	<10	5	<10	12	--	--	--	--

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

SOUTHEAST ALASKA--Continued

580502134371400 - GREENS C AB BIG SORE C NR JUNEAU AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
AUG 18...	1700	E40	95	7.6	47	8	16	1.8	1.1	.0	47

DATE	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
AUG 18...	0	13	2.0	.0	3.9	61	.01	1	100	0

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG 18...	0	5	30	30	0	0	.2	1	0	10

580500134371900 - BIG SORE C NR JUNEAU AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
AUG 18...	1600	6.4	170	8.0	8.5	64	13	18	4.7	1.0	.1

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
AUG 18...	62	0	33	.0	4.3	.02	0	200	0	0

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG 18...	4	100	40	0	0	0	.1	1	0	10

E ESTIMATED

580455134380500 - WEST MINE DRAINAGE C NR JUNEAU AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
AUG											
18...	1300	<5.0	160	7.8	6.5	58	22	16	4.4	1.8	.2

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
AUG											
18...	44	0	18	.6	.0	7.9	74	.66	0	100	0

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG											
18...	0	4	290	30	0	20	0	.1	2	0	10

580444134383700 - GREENS C BL WEST MINE DRAINAGE C NR JUNEAU AK

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG											
18...	1230	52	110	7.3	8.0	11.3	51	6	16	2.7	1.5
18...	1700	52	--	--	--	--	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
AUG											
18...	.1	55	0	12	.9	.0	4.0	64	.02	--	--
18...	--	--	--	--	--	--	--	--	--	1	0

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG										
18...	--	--	--	--	60	--	0	--	--	--
18...	0	0	7	330	--	10	--	1	0	20

SOUTHEAST ALASKA--Continued

580443134384000 - GALLAGHER C NR JUNEAU AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 18...	1400	3.4	140	7.2	9.0	11.5	72	19	23	3.5	1.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 18...	.1	65	0	12	.9	.0	2.9	76	.15	50	10

580539134442400 - ZINC C NR JUNEAU AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
AUG 18...	1730	E12	84	7.1	11.5	36	0

580500134373300 - EAST MINE DRAINAGE C NR JUNEAU AK

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
AUG 18...	1430	9.22	150	8.5

E Estimated

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTH-CENTRAL ALASKA

620439145283000 - TAZLINA R AT PIPELINE NR GLENNALLEN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 21,77
TIME	1240
TOTAL COUNT	52
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.5
...FAMILY	2.2
....GENUS	2.3
....GENUS-INSECTA	2.3

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CRICOTOPUS	8
....UNKNOWN GENUS #1	1
..EPHEMEROPTERA	
...BAETIDAE	
....BAETIS	19
...EPHEMERELLIDAE	
....EPHEMERELLA	6
...HEPTAGENIIDAE	
....RHITHROGENA	1
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	4
...PERLODIDAE	
....ISOPERLA	13

LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

611200145330600 - TSINA R NR PTARMIGAN NR VALDEZ AK

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 22,77
TIME	1420
TOTAL COUNT	3
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.9
....GENUS-INSECTA	0.9

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....DIAMESA	2
....ORTHOCLADIUS	1

LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

SOUTH-CENTRAL ALASKA--Continued

610311146043900 - CANYON SLOUGH SITE 1 NR VALDEZ AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO SEPTEMBER 1977

DATE	SEP 22,77
TIME	0935
TOTAL COUNT	110
DIVERSITY: PHYLUM	0.3
.CLASS	0.5
..ORDER	1.6
...FAMILY	2.2
....GENUS	2.7
....GENUS-INSECTA	2.4
ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..PROSOPORA	
...LUMBRICULIDAE	
....UNKNOWN GENUS	7
ARTHROPODA (ARTHROPODS)	
.ARACHNIDA	
..ACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	1
.CRUSTACEA	
..AMPHIPODA	
...GAMMARIDAE	
....UNKNOWN GENUS	1
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....BRILLIA	3
....DIPLOCLADIUS	1
....EUKIEFFERIELLA	21
....HETEROTRISSOCLADIUS	3
....MICROPSECTRA	1
....THIENEMANNIELLA	3
...EMPIDIDAE	
....CHELIFERA	10
...TIPULIDAE	
....DICRANOTA	3
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	1
...PERLODIDAE	
....ISOPERLA	1
..TRICHOPTERA	
...LIMNEPHILIDAE	
....ECCLISOMYIA	5
..PLECOPTERA	
...NEMOURIDAE	
....ZAPADA	49
STREAM WIDTH	5 FT
CROSS-SECTION LOCATION	3 FT
LENGTH OF EXPOSURE	350 DAYS
SAMPLING METHOD	ROCK BASKET WITH NET ARTIFICIAL SUBSTRATE

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
SOUTH-CENTRAL ALASKA--Continued
610313146052000 - CANYON SLOUGH SITE 4 NR VALDEZ AK
WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO SEPTEMBER 1977

DATE	SEP 22,77
TIME	0830
TOTAL COUNT	179
DIVERSITY: PHYLUM	0.1
.CLASS	0.1
..ORDER	1.0
...FAMILY	1.1
....GENUS	1.4
....GENUS-INSECTA	1.3
ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #5	2
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....EUKIEFFERIELLA	133
....MICROPSECTRA	1
....PSEUDODIAMESA	6
....THIENEMANNIELLA	1
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	2
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	5
..TRICHOPTERA	
...RHYACOPHILIDAE	
....RHYACOPHILA	3
..PLECOPTERA	
...NEMOURIDAE	
....ZAPADA	26
STREAM WIDTH	20 FT
CROSS-SECTION LOCATION	4 FT
LENGTH OF EXPOSURE	350 DAYS
SAMPLING METHOD	ROCK BASKET WITH NET ARTIFICIAL SUBSTRATE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTH-CENTRAL ALASKA--Continued

610313146050600 - CANYON SLOUGH SITE 3 NR VALDEZ AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES. JULY 1977 TO SEPTEMBER 1977

DATE	SEP 22.77
TIME	0915
TOTAL COUNT	43
DIVERSITY: PHYLUM	0.3
.CLASS	0.3
..ORDER	1.9
...FAMILY	2.5
....GENUS	3.4
....GENUS-INSECTA	3.3

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #5	2
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....BRILLIA	3
....CHAETOCLADIUS	5
....EUKIEFFERIELLA	5
....ORTHOCLADIUS	2
...EMPIDIDAE	
....CHELIFERA	4
...TIPULIDAE	
....ANTOCHA	1
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	8
..PLECOPTERA	
...CHLOROPERLIDAE	
....PARAPERLA	2
..TRICHOPTERA	
...RHYACOPHILIDAE	
....RHYACOPHILA	2
..DIPTERA	
...CHIRONOMIDAE	
....PSECTROCLADIUS	1
..PLECOPTERA	
...NEMOURIDAE	
....MALENKA	1
....ZAPADA	7

STREAM WIDTH	28 FT
CROSS-SECTION LOCATION	3 FT
LENGTH OF EXPOSURE	350 DAYS
SAMPLING METHOD	ROCK BASKET WITH NET ARTIFICIAL SUBSTRATE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTH-CENTRAL ALASKA--Continued

602938149502600 - BEAN C AT BEAN C BRIDGE NR COOPER LANDING AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
10...	1300	.57	420	8.5

602940149505800 - BEAN C AT KNAACK BRIDGE NR COOPER LANDING AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
10...	1400	.46	430	8.5

602944149512000 - BEAN C AB TR NR COOPER LANDING AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
10...	1445	.27	320	8.5

602945149511500 - BEAN C TR NR COOPER LANDING AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
10...	1515	.32	510	8.5

602930149495800 - BEAN C AT MOUTH NR COOPER LANDING AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
SEP				
10...	1600	.38	420	8.5

614251149585100 - LILLY C AB HOWLING DOG FARM NR WILLOW AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
AUG 23...	1330	.78	110	7.5	10.5	45	10.6	35	25	3	55

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
AUG 23...	4	17	3.0	2.5	.4	62	0	5.1	.9	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
AUG 23...	9.3	79	70	.08	.01	.77	.78	.86	.02	.02

DATE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 23...	.01	0	1	100	0	4	820	430	60	40

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
AUG 23...	.1	4	3	1	0	0	10	<.2	.339	.081

614215150001400 - LILLY C AT NANCY LK NR WILLOW AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
AUG 23...	0930	.83	103	7.0	10.0	37	10.3	33	25	K7	52

K NON-IDEAL COLONY COUNT

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTH-CENTRAL ALASKA--Continued

614215150001400 - LILLY C AT NANCY LK NR WILLOW AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
AUG											
23...	2	16	2.9	2.5	.4	61	0	2.4	1.0	.1	8.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
AUG											
23...	69	65	.07	.08	.02	.01	.33	.33	.35	.34	.42

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
AUG											
23...	.02	.02	.01	0	1	100	0	5	930	620	100

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
AUG											
23...	100	.0	6	1	0	0	10	8.2	.3	.823	.081

614026149592400 - LAKE C AT NANCY LK OUTLET NR WILLOW AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
AUG											
23...	1700	6.1	108	7.7	18.0	9	10.0	K13	K18	<1	44

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
AUG											
23...	0	14	2.2	6.5	.6	62	0	1.7	9.4	.1	4.1

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
AUG											
23...	68	69	.00	.02	.01	.00	.35	.39	.36	.39	.36

K NON-IDEAL COLONY COUNT

BEST DOCUMENT AVAILABLE

SOUTH-CENTRAL ALASKA--Continued

614026149592400 - LAKE C AT NANCY LK OUTLET NR WILLOW AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
AUG 23...	.02	.02	.01	0	1	100	0	5	260	50	30

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
AUG 23...	10	.0	5	4	0	0	0	7.4	.5	1.14	.061

624941149221500 - SUSITNA R AB PORTAGE C NR GOLD CREEK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 05...	1300	E6500	165	7.2	8.0	2.0	6	13.9	62	17	20	3.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT 05...	7.1	1.6	55	0	13	17	.1	8.7	87	98	.07	.00

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT 05...	410	1	200	<10	10	20	730	40	<100	40	0	.0

DATE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT 05...	4	<50	0	<10	20	22	386	47	63	82	94	100

E ESTIMATED.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SOUTH-CENTRAL ALASKA--Continued

15292780 - SUSITNA RIVER AT SUNSHINE AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)
OCT										
04...	0915	--	27400	135	7.4	7.0	4.0	8	757	12.8
04...	0916	775	--	138	--	--	3.7	--	--	--
04...	0917	725	--	130	--	--	3.7	--	--	--
04...	0918	700	--	135	--	--	3.7	--	--	--
04...	0919	650	--	135	--	--	3.8	--	--	--
04...	0920	600	--	135	--	--	3.8	--	--	--

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT										
04...	55	12	17	3.0	4.4	1.2	52	0	12	6.0
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT										
04...	.1	7.4	66	78	.23	.00	2200	3	200	<10
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
OCT										
04...	10	20	3700	60	<100	100	0	.0	3	<50
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
04...	0	<10	30	288	21300	9	15	38	88	100
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

YUKON ALASKA

644322147192900 - TANANA R NR N POLE AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
MAY							
31...	1300	18600	13.0	594	29800	7	10
JUN							
21...	1415	25500	--	860	59200	19	26
JUL							
11...	1400	37800	--	2820	288000	17	22
18...	1250	54000	14.0	2980	434000	18	23
AUG							
01...	1200	54900	17.0	2640	391000	17	21
09...	1310	55000	15.5	2850	423000	17	23
15...	1300	53600	14.0	2110	305000	19	24
SEP							
08...	1300	32100	--	685	59400	20	24

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
MAY							
31...	16	24	33	*44	*62	*92	*100
JUN							
21...	31	37	44	51	67	96	100
JUL							
11...	32	45	59	73	88	99	100
18...	27	39	51	67	84	98	100
AUG							
01...	32	48	61	77	91	98	100
09...	32	43	56	72	89	99	100
15...	35	47	61	75	90	100	--
SEP							
08...	35	46	56	66	78	98	100

635517148421000 - LIGNITE C AB SANDERSON C NR USIBELLI AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV									
01...	1600	5.4	205	6.7	.0	9	90	0	21
SEP									
07...	1400	6.5	160	7.5	7.0	35	70	2	16

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV									
01...	9.1	10	1.3	130	0	23	2.1	.1	21
SEP									
07...	7.4	8.9	1.2	84	0	15	1.7	.1	16

* SIEVE DIAMETER

BEST DOCUMENT AVAILABLE

635517148421000 - LIGNITE C AB SANDERSON C NR USIBELLI AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV 01...	141	154	.33	.01	190	240	373	5.4
SEP 07...	111	109	.10	.00	350	140	128	2.2

635453148423700 - LIGNITE C BL SANDERSON C NR USIBELLI AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 01...	1520	6.7	400	6.9	.0	23	180	70	36
MAY 12...	1220	29	250	7.6	.0	220	130	60	24
SEP 07...	1300	12	400	7.8	8.0	17	190	88	35

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 01...	23	14	1.7	140	0	100	9.2	.3	10
MAY 12...	16	7.4	2.1	80	0	63	4.6	.2	6.2
SEP 07...	26	10	1.8	128	0	100	6.0	.3	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV 01...	311	273	.24	.01	90	340	216	3.9
MAY 12...	162	164	.24	.01	270	150	3400	266
SEP 07...	262	255	.19	.00	110	280	153	5.0

YUKON ALASKA--Continued

674420149451000 - SNOWDEN C NR DIETRICH CAMP NR WISEMAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR, OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES. AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 16.77
TIME	0840
TOTAL COUNT	85
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.0
...FAMILY	1.5
....GENUS	1.6
....GENUS-INSECTA	1.6

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....EUKIEFFERIELLA	35
....SMITTIA	1
...EMPIDIDAE	
....CLINOCERA	1
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	12
...NEMOURIDAE	
....NEMOURA	36
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

BEST DOCUMENT AVAILABLE

YUKON ALASKA--Continued

672745150020000 - HAMMOND R NR WISEMAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES. AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 16.77
TIME	1340
TOTAL COUNT	454
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.6
...FAMILY	2.1
....GENUS	2.3
....GENUS-INSECTA	2.3

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....OREODYTES	1
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA	5
....CRICOTOPUS	41
....DIAMESA	1
....MICROPSECTRA	1
....TANYTARSUS	1
....THIENEMANNIELLA	1
....UNKNOWN GENUS #1	1
...EMPIDIDAE	
....UNKNOWN GENUS	2
....WIEDEMANNIA	4
...SIMULIIDAE	
....UNKNOWN GENUS	3
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	11
...HEPTAGENIIDAE	
....RHITHROGENA	128
...SIPHLONURIDAE	
....UNKNOWN GENUS	4
..HEMIPTERA	
...CORIXIDAE	
....CALLICORIXA	3
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	28
...PERLODIDAE	
....ISOPERLA	210
..TRICHOPTERA	
...LIMNEPHILIDAE	
....ONOCOSMOECUS	9
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

BEST DOCUMENT AVAILABLE

670110150164000 - SF KOYUKUK R NR WISEMAN AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 17,77
TIME	0800
TOTAL COUNT	661
DIVERSITY: PHYLUM	0.1
.CLASS	0.1
..ORDER	1.1
...FAMILY	2.0
....GENUS	2.6
....GENUS-INSECTA	2.5

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..PLESIOPORA	
...ENCHYTRAEIDAE	
....UNKNOWN GENUS	6
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CARDIOCLADIUS	2
....CONCHAPELOPIA	97
....CORYNONEURA	2
....CRICOTOPUS	21
....DIAMESA	3
....EUKIEFFERIELLA	4
....MICROPSECTRA	18
....ORTHOCLADIUS	2
....POLYPEDILUM	1
....PSEUDODIAMESA	3
....SMITTIA	1
....STEMPELLINA	11
....TRICHOTANYPUS	2
....UNKNOWN GENUS #1	1
...SIMULIIDAE	
....PROSIMULIUM	331
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	2
...HEPTAGENIIDAE	
....RHITHROGENA	86
...SIPHLONURIDAE	
....PARAMELETUS	27
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	17
...TAENIOPTERYGIDAE	
....TAENONEMA	7
..TRICHOPTERA	
...BRACHYCENTRIDAE	
....BRACHYCENTRUS	14
....MICRASEMA	1
...LIMNEPHILIDAE	
....APATANIA	1
NEMATODA (NEMATODES)	
.UNKNOWN CLASS	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS	1
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

BEST DOCUMENT AVAILABLE

664650150403000 - PROSPECT C AT PIPELINE NR BETTLES AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES. AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 17,77
TIME	1555
TOTAL COUNT	306
DIVERSITY: PHYLUM	0.0
.CLASS	0.3
..ORDER	1.6
...FAMILY	2.1
....GENUS	3.4
....GENUS-INSECTA	3.3

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.ARACHNIDA	
..ACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	13
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....DERONECTES	5
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA	59
....CRICOTOPUS	32
....EUKIEFFERIELLA	11
....HETEROTRISSOCLADIUS	1
....MICROPSECTRA	74
....PSEUDODIAMESA	1
....STEMPELLINA	9
...MUSCIDAE	
....LIMNOPHORA	1
...SIMULIIDAE	
....PROSIMULIUM	11
...TIPULIDAE	
....DICRANOTA	6
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	1
...EPHEMERELLIDAE	
....EPHEMERELLA	1
...HEPTAGENIIDAE	
....RHITHROGENA	35
...SIPHLONURIDAE	
....UNKNOWN GENUS	1
..HEMIPTERA	
...CORIXIDAE	
....UNKNOWN GENUS	1
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	23
...PERLODIDAE	
....ISOPERLA	1
..TRICHOPTERA	
...BRACHYCENTRIDAE	
....BRACHYCENTRUS	4
...LIMNEPHILIDAE	
....APATANIA	15
....CLOSTOECA	1

LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

BEST DOCUMENT AVAILABLE

YUKON ALASKA--Continued

662603150380700 - KANUTI R NR BETTLES AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 17,77
TIME	1310
TOTAL COUNT	135
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.8
...FAMILY	2.1
....GENUS	3.6
....GENUS-INSECTA	3.6

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....DERONECTES	17
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA	23
....CORYNONEURA	5
....CRICOTOPUS	6
....HETEROTRISSOCLADIUS	11
....ORTHOCLADIUS	2
....POTTHASTIA	4
....PROCLADIUS	2
....RHEOTANYTARSUS	10
....THIENEMANNIELLA	2
....TRICHOCLADIUS	2
...TIPULIDAE	
....TIPULA	11
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	14
..HEMIPTERA	
...CORIXIDAE	
....CALLICORIXA	19
..TRICHOPTERA	
...BRACHYCENTRIDAE	
....MICRASEMA	6
..DIPTERA	
...CHIRONOMIDAE	
....PSECTROCLADIUS	1

LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

NORTHWEST ALASKA

674416156133000 - NOATAK R BL IPNELIVIK R NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 11...	1330	6.6	1500	7.5	-6.5	1.0	1	5.3	930	310	240
AUG 09...	1400	997	362	7.9	--	13.0	--	--	210	100	57

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 11...	80	6.4	3.1	752	0	340	1.8	.4	13	1040
AUG 09...	16	1.0	.7	134	0	90	.5	.1	2.8	--

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 11...	1060	.78	.00	0	2	0	0	0	0	70
AUG 09...	234	.07	--	210	0	0	--	0	1	540

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 11...	10	0	10	0	.0	4	0	2	0	20
AUG 09...	40	--	20	10	.0	--	--	1	0	20

675115156252700 - MIDAS C AT MOUTH NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 11...	1130	179	110	7.7	23.0	10.0	11.8	57	12	6.5	9.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 11...	.9	.2	55	9.6	.8	.0	2.7	60	.52	50	0

NORTHWEST ALASKA--Continued

675150158134000 - NOATAK R AB CUTLER R NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG												
14...	1100	2310	270	8.1	15.0	12.5	12.0	150	53	43	9.7	.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG											
14...	.5	118	0	49	.4	.1	2.6	165	.21	50	0

675054158192000 - CUTLER R AT MOUTH NR NOATAK AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG												
15...	1800	468	260	8.0	15.0	13.5	12.0	150	22	45	7.9	.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG											
15...	.2	156	0	17	.5	.0	2.1	156	1.3	20	10

680139158380400 - MAKPIK C AT MOUTH NR NOATAK AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG												
16...	1730	125	75	7.5	22.0	13.0	11.0	37	4	7.0	4.8	.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG											
16...	.1	40	0	4.9	.3	.0	3.7	43	.35	50	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

NORTHWEST ALASKA--Continued

680140158553500 - NOATAK R AB ANISAK R NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 17...	1300	2690	270	8.2	18.0	13.5	12.2	140	45	40	8.9	.9

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 17...	.4	116	0	38	.5	.1	2.5	149	.11	100	10

680240158570000 - ANISAK R AT MOUTH NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 18...	1030	390	200	7.6	21.0	10.0	10.0	87	33	27	4.8	1.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 18...	.4	66	0	40	.3	.0	4.1	111	.01	60	0

680211159023600 - NOATAK R BL ANISAK R NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
APR 06...	1100	.82	750	7.7	-21.0	1.0	1	4.0	450	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR 06...	130	31	13	1.2	412	0	110	5.1	.1	7.1

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 06...	450	502	.22	.07	20	1	100	0	1	70

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

NORTHWEST ALASKA--Continued

680211159023600 - NOATAK R BL ANISAK R NR NOATAK AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 06...	10	40	40	.0	3	0	0	0	10

681257159552300 - NIMIUKTUK R BL TUMIT C NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 07...	1500	12	190	7.3	-14.0	1.0	1	10.2	90	24	27
AUG 20...	1400	771	170	7.6	17.0	9.5	--	10.8	78	25	24

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 07...	5.5	.9	.3	80	0	32	.4	.0	5.2	99
AUG 20...	4.3	1.7	.4	64	0	32	.5	.0	5.0	--

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 07...	111	.11	.00	0	1	200	0	0	0	30
AUG 20...	100	.11	--	--	--	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 07...	20	2	0	0	.0	3	0	1	0	0
AUG 20...	20	--	--	0	--	--	--	--	--	--

680024160110000 - NOATAK R BL NIMIUKTUK R NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 21...	1130	3980	240	7.8	14.0	11.5	11.0	140	53	42	7.6

680024160110000 - NOATAK R BL NIMIUKTUK R NR NOATAK AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)
AUG 21...	1.4	.7	106	0	41	.4	.1	3.6	149	0	0

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
AUG 21...	0	6	60	50	10	0	.0	3	0	0	240

675523160561000 - NOATAK R IN GRAND CANYON NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 22...	1445	7920	230	7.8	15.0	11.5	11.0	120	38	37	7.6	1.1

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 22...	.4	100	0	37	.4	.1	3.6	137	.18	30	0

675754161364000 - NOATAK R IN NOATAK CANYON NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 23...	1545	10200	245	7.9	17.0	13.0	10.8	140	45	43	8.6	1.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 23...	.4	116	0	49	1.0	.1	3.7	165	.21	20	0

675745161442000 - TULUGAK LK AT OUTLET NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG												
24...	1300	E1.0	150	8.2	25.0	13.0	10.0	81	9	25	4.4	2.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG											
24...	1.3	88	0	2.0	2.6	.1	.4	83	.17	50	0

681317161291400 - KUGURUROK R AB TRAIL C NR NOATAK AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
APR										
10...	1220	11	325	8.1	-11.0	1.0	1	10.8	170	37

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
APR										
10...	55	7.6	1.3	.2	160	0	46	.6	.0	3.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
APR										
10...	188	193	.04	.00	40	1	200	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR										
10...	40	20	0	0	.0	4	0	0	0	10

E ESTIMATED

680124161500800 - KUGURUROK R NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
APR 02...	1010	35	320	7.5	-5.0	1.0	1	10.8	170	27

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR 02...	51	9.4	1.5	.2	170	0	37	.9	.0	4.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 02...	182	189	.14	.00	20	1	200	0	0	20

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 02...	10	0	0	.0	3	2	1	0	10

675648162020400 - NOATAK R BL KUGURUROK R NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
APR 01...	1400	46	312	7.5	-9.5	1.0	1	7.5	170	25

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR 01...	49	11	.9	.3	174	0	34	.7	.1	4.6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

NORTHWEST ALASKA--Continued

675648162020400 - NOATAK R BL KUGURUROK R NR NOATAK AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 01...	177	187	.22	.00	30	1	200	0	0	50

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 01...	20	0	10	.0	5	0	0	0	10

674913162415000 - NOATAK R AB NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 26...	1500	12700	240	7.9	13.0	10.0	12.0	130	38	7.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)
AUG 26...	.9	.4	33	.5	.1	3.8	.18	80	0	0

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
AUG 26...	0	3	110	40	10	0	.0	0	0	10

672804163044800 - NOATAK R AB ELI R NR NOATAK AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
APR 03...	1300	88	270	7.6	10.0	1.0	1	9.0	150	20

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

NORTHWEST ALASKA--Continued

672804163044800 - NOATAK R AB ELI R NR NOATAK AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
APR 03...	45	8.6	.6	.3	156	0	23	.7	.0	5.3

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
APR 03...	144	160	0	1	200	1	0	1	70	20

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
APR 03...	2	0	0	.0	3	2	0	0	10

672528162590500 - ELI R NR MOUTH NR NOATAK AK

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
APR 04...	1445	25	300	7.3	-5.0	1.0	1	5.1	170	16	53

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR 04...	9.5	.8	.3	190	0	16	1.3	.1	6.3	165

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
APR 04...	182	.10	.01	20	0	300	0	0	1	0

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
APR 04...	10	1	130	130	.0	5	6	0	0	10

NORTHWEST ALASKA--Continued

671524162350900 - NOATAK R NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 04...	1800	8040	7.5	--	1.0	1	--	990	840	98
AUG 31...	0900	250	7.9	11.0	11.0	--	11.2	130	36	41

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 04...	180	1400	51	180	0	380	2500	.3	4.6	4750
AUG 31...	7.7	1.0	.4	114	0	35	.7	.1	4.0	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 04...	4700	.22	.01	0	1	200	0	20	1	40
AUG 31...	146	.07	--	170	0	100	0	0	4	340

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 04...	60	3	60	50	.0	5	4	0	0	10
AUG 31...	20	--	20	0	.0	--	--	0	0	10

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA

692000159413800 - CARBON C NR POINT LAY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, MAY 1977 TO JUNE 1977

DATE	JUN 26,77
TIME	1910
TOTAL COUNT	179
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.3
...FAMILY	1.6
....GENUS	3.1
....GENUS-INSECTA	3.1

ORGANISM	COUNT
ARTHROPO(ARTHROPODS	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	5
..DIPTERA	
...CHIRONOMIDAE	
....CLADOTANYTARSUS	6
....CONCHAPELOPIA	10
....CORYNONEURA	65
....CRICOTOPUS	9
....EUKIEFFERIELLA	1
....ORTHOCLADIUS	12
....PARALAUTERBORNIELLA	1
....SMITTIA	3
....STEMPELLINA	2
....THIENEMANNIELLA	7
....TRICHOTANYPUS	1
...SIMULIIDAE	
....METACNEPHIA	4
....SIMULIUM	2
...TIPULIDAE	
....TIPULA	2
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	32
...SIPHLONURIDAE	
....AMELETUS	1
..TRICHOPTERA	
...LIMNEPHILIDAE	
....UNKNOWN GENUS	15
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	1

LENGTH OF EXPOSURE	6 MIN
SAMPLING METHOD	DIP NET

693718160300000 - UTUKOK R BL ELUSIVE C NR POINT LAY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JUNE 1977

DATE	JUN 27,77
TIME	1000
TOTAL COUNT	212
DIVERSITY: PHYLUM	0.1
.CLASS	0.2
..ORDER	0.7
...FAMILY	1.4
....GENUS	2.3
....GENUS-INSECTA	2.1

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..PROSOPORA	
...LUMBRICULIDAE	
....UNKNOWN GENUS	2
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #5	1
ARTHROPO(ARTHROPODS	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	5
..DIPTERA	
...CHIRONOMIDAE	
....BRILLIA	1
....CORYNONEURA	43
....EUKIEFFERIELLA	100
....MICROPSECTRA	4
....ORTHOCLADIUS	2
...SIMULIIDAE	
....METACNEPHIA	36
..EPHEMEROPTERA	
...HEPTAGENIIDAE	
....CINYGMULA	13
...SIPHLONURIDAE	
....AMELETUS	2
..TRICHOPTERA	
...RHYACOPHILIDAE	
....RHYACOPHILA	1
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	1
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....UNKNOWN GENUS #5	1
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

700735159224800 - AVALIK R AB OYAGARUK C NR WAINWRIGHT AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JULY 1977

DATE	JUL 20,77
TIME	1515
TOTAL COUNT	4
DIVERSITY: PHYLUM	1.0
.CLASS	1.0
..ORDER	1.5
...FAMILY	1.5
....GENUS	2.0
....GENUS-INSECTA	1.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CRYPTOCHIRONOMUS	1
....POLYPEDILUM	1
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...LYMNAEIDAE	
....LYMNAEA	1
..MESOGASTROPODA	
...VALATIDAE	
....VALVATA	1
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

704545157130200 - INARU R BL KUCHEAK CR NR BARROW AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR 20, 1978	1245	.00	550	6.0	-8.0	.0	12	6.7	<1	K1

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR 20, 1978	170	76	42	17	40	2.2	120	0	6.1	110

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 20, 1978	.1	1.0	371	270	.17	.01	100	10	15

K NON-IDEAL COLONY COUNT

ARCTIC SLOPE ALASKA--Continued

705328156464200 - INARU R BL NIKLAVIK CR NR BARROW AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR 20...	1040	.00	600	6.6	-9.5	.0	0	8.3	<1	<1

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR 20...	120	66	24	15	66	2.5	68	0	13	140

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 20...	.0	.0	330	296	.39	.01	30	0	7.3

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 17,77
TIME	1505
TOTAL COUNT	28
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	1.1
....GENUS-INSECTA	1.1

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CORYNONEURA	22
....CRICOTOPUS	2
....MICROPSECTRA	1
....PSECTROCLADIUS	3

LENGTH OF EXPOSURE	20 MIN
SAMPLING METHOD	DIP NET

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

693610157245700 - MEADE R AB SHANINGAROK C NR ATKASUK AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JULY 1977

DATE	JUL 19,77
TIME	1625
TOTAL COUNT	4
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.0
...FAMILY	1.5
....GENUS	1.5
....GENUS-INSECTA	1.5

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..EPHEMEROPTERA	
...HEPTAGENIIDAE	
....CINYGMULA	1
...METRETOPODIDAE	
....METRETOPUS	1
..TRICHOPTERA	
...LIMNEPHILIDAE	
....DICOSMOECUS	2
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

704912156313600 - MEADE R AT DELTA NR BARROW AK

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
APR 21, 1978	1000	.00	774	7.0	.0	0	4.0	<1	<1	260

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR 21, 1978	48	60	27	60	4.2	260	0	12	120

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 21, 1978	.1	1.2	464	414	.30	.01	390	20	15

BEST DOCUMENT AVAILABLE

BEST DOCUMENT AVAILABLE

ARCTIC SLOPE ALASKA--Continued

704135155270000 - CHIPP R NR BARROW AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
APR 22...	1015	.00	400	7.4	.0	100	8.5	<1	<1	220

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR 22...	30	66	13	7.3	2.0	230	0	15	9.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 22...	.1	8.4	291	237	.43	.01	310	10	34

692828156141600 - TITALUK R NR VABM 625 GLENBAR NR ATKASUK AK

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 19,77
TIME	1355
TOTAL COUNT	698
DIVERSITY: PHYLUM	0.1
.CLASS	0.1
..ORDER	0.2
...FAMILY	1.2
....GENUS	1.5
....GENUS-INSECTA	1.4

ORGANISM	COUNT
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	1
..DIPTERA	
...CHIRONOMIDAE	
....EUKIEFFERIELLA	32
....ORTHOCLADIUS	264
....TRISSOCLADIUS	8
...SIMULIIDAE	
....PROSIMULIUM	376
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	2
..DIPTERA	
...CHIRONOMIDAE	
....PSECTROCLADIUS	4
..TRICHOPTERA	
...LIMNEPHILIDAE	
....DICOSMOECUS	5
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...PHYSIDAE	
....PHYSA	1
...PLANORBIDAE	
....GYRAULUS	3
..MESOGASTROPODA	
...VALATIDAE	
....VALVATA	2
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

700812154383000 - IKPIKPUK R NR LONELY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO AUGUST 1977

DATE	AUG 1.77
TIME	1555
TOTAL COUNT	193
DIVERSITY: PHYLUM	0.0
.CLASS	0.1
..ORDER	0.8
...FAMILY	0.9
....GENUS	1.0
....GENUS-INSECTA	0.8

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....DERONECTES	4
..DIPTERA	
...CHIRONOMIDAE	
....CORYNONEURA	1
....EUKIEFFERIELLA	--
....MONODIAMESA	--
....RHEOTANYTARSUS	--
....UNKNOWN GENUS #1	1
...SIMULIIDAE	
....SIMULIUM	163
..EPHEMEROPTERA	
...BAETIDAE	
....BAETIS	16
..TRICHOPTERA	
...BRACHYCENTRIDAE	
....BRACHYCENTRUS	1
...LIMNEPHILIDAE	
....UNKNOWN GENUS	1
....DICOSMOECUS	2
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	4
LENGTH OF EXPOSURE	30 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

693906152570000 - JUDY C NR UMIAT AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO AUGUST 1977

DATE	AUG 3.77
TIME	1150
TOTAL COUNT	139
DIVERSITY: PHYLUM	0.8
.CLASS	0.9
..ORDER	1.6
...FAMILY	1.8
....GENUS	2.9
....GENUS-INSECTA	2.6

ORGANISM	COUNT
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	2
..DIPTERA	
...CHIRONOMIDAE	
....CHAETOCLADIUS	10
....CONCHAPELOPIA	3
....CORYNONEURA	51
....MICROPSECTRA	4
....PHAENOPSECTRA	3
....PROCLADIUS	4
...TIPULIDAE	
....TIPULA	3
..EPHEMEROPTERA	
...BAETIDAE	
....BAETIS	1
...METRETOPODIDAE	
....METRETOPUS	14
..TRICHOPTERA	
...LEPIDOSTOMATIDAE	
....LEPIDOSTOMA	1
...LIMNEPHILIDAE	
....DICOSMOECUS	3
..DIPTERA	
...CHIRONOMIDAE	
....LIMNOCHIRONOMUS	7
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	3
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..MESOGASTROPODA	
...VALATIDAE	
....VALVATA	30
LENGTH OF EXPOSURE	30 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

685330160212200 - COLVILLE R AB AMO C NR POINT LAY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES. MAY 1977 TO JUNE 1977

DATE	JUN 26.77
TIME	1300
TOTAL COUNT	622
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.5
...FAMILY	1.1
....GENUS	1.9
....GENUS-INSECTA	1.9

ORGANISM	COUNT
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	50
..COLEOPTERA	
...DYTISCIDAE	
....DERONECTES	1
..DIPTERA	
...CHIRONOMIDAE	
....CHAETOCLADIUS	1
....CONCHAPELOPIA	6
....CORYNONEURA	385
....CRICOTOPUS	12
....EUKIEFFERIELLA	7
....MICROPSECTRA	3
....ORTHOCLADIUS	49
....UNKNOWN GENUS #1	1
....UNKNOWN GENUS #2	3
...EMPIDIDAE	
....CLINOCERA	1
...SIMULIIDAE	
....METACNEPHIA	96
...TIPULIDAF	
....TIPULA	2
..PLECOPTERA	
...CHLOROPERLIDAE	
....UNKNOWN GENUS	4
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	1

LENGTH OF EXPOSURE	10 MIN
SAMPLING METHOD	DIP NET

683702159120000 - BOGIE C NR POINT LAY AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JULY 1977

DATE	JUN 28.77
TIME	0930
TOTAL COUNT	606
DIVERSITY: PHYLUM	0.0
.CLASS	0.1
..ORDER	0.6
...FAMILY	0.7
....GENUS	2.0
....GENUS-INSECTA	1.9
ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	3
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	43
..DIPTERA	
...CHIRONOMIDAE	
....CORYNONEURA	312
....DIAMESA	8
....EUKIEFFERIELLA	18
....ORTHOCLADIUS	172
....RHEOTANYTARSUS	24
....TRICHOTANYPUS	2
...EMPIDIDAE	
....HEMERODROMIA	1
...SIMULIIDAE	
....PROSIMULIUM	3
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	15
...PELTOPERLIDAE	
....PELTOPERLA	1
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	4
LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

680945156014000 - NIGU R NR ETIVLIK LK NR SHUNGNAK AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JULY 1977

DATE	JUL 1,77
TIME	1500
TOTAL COUNT	100
DIVERSITY: PHYLUM	0.0
.CLASS	0.7
..ORDER	1.7
...FAMILY	1.9
....GENUS	2.0
....GENUS-INSECTA	1.6

ORGANISM	COUNT
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	8
..COLEOPTERA	
...DYTISCIDAE	
....COPTOTOMUS	2
..DIPTERA	
...CHIRONOMIDAE	
....CLADOTANYTARSUS	1
....CORYNONEURA	1
....EUKIEFFERIELLA	3
...TIPULIDAE	
....TIPULA	10
..EPHEMEROPTERA	
...BAETIDAE	
....UNKNOWN GENUS	56
..PLECOPTERA	
...LEUCTRIDAE	
....LEUCTRA	1
.ARACHNIDA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	18

LENGTH OF EXPOSURE	
SAMPLING METHOD	DIP NET

15875000 - COLVILLE R NR UMIAT AK

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
APR 25, 1978	1200	.00	285	7.2	.0	2	1.8	<1	<1	140

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR 25, 1978	37	36	13	4.4	1.0	130	0	40	1.4

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 25, 1978	.0	4.6	149	167	.45	.01	30	0	3.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

ARCTIC SLOPE ALASKA--Continued

681625149243000 - ATIGUN R NR GALBRAITH LK NR SAGWON AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, AUGUST 1977 TO SEPTEMBER 1977

DATE	SEP 15,77
TIME	1550
TOTAL COUNT	308
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.8
...FAMILY	0.9
....GENUS	1.3
....GENUS-INSECTA	1.3

ORGANISM	COUNT
ARTHROPO(ARTHROPODS)	
.INSECTA	
..PLECOPTERA	
...NEMOURIDAE	
....NEMOURA	48
..DIPTERA	
...CHIRONOMIDAE	
....CRICOTOPUS	224
....EUKIEFFERIELLA	25
....MICROPSECTRA	1
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	4
...HEPTAGENIIDAE	
....UNKNOWN GENUS	6

LENGTH OF EXPOSURE	15 MIN
SAMPLING METHOD	DIP NET

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA

603800151193000 - SALAMATOF LK NR KENAI AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
19...	1150	70	6.6	3.5	29	0	.01	.07	.15	.22	.23	.02

603942151091500 - KONOVALOF LK NR KENAI AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
05...	0940	18	6.1	7.0	--	--	--	--	--	--
18...	1210	18	6.2	4.0	4	7	2	1.9	.5	1.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
05...	--	7	0	--	--	--	--	--	--	--
18...	.4	6	0	4.2	2.1	.1	.6	19	14	.01

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT									
05...	--	--	--	--	--	--	--	--	--
18...	.01	.05	.34	.39	.40	.01	.00	30	4

603954151160000 - KIDNEY LK NR KENAI AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
19...	1315	1.0	33	6.8	5.0	3	10	1	3.0	.7

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
19...	2.2	.6	12	0	7.3	2.7	.0	.9	24	23

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

603954151160000 - KIDNEY LK NR KENAI AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 19...	.00	.00	.01	.40	.41	.41	.01	.00	10	0

604005151191500 - UNNAMED LK SE OF CABIN LK NR KENAI AK

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT 19...	1045	<25	6.1	3.5	3	0

604025151192700 - CABIN LK NR KENAI AK

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT										
05...	1410	--	39	6.4	8.5	--	--	--	--	--
19...	0940	1.0	45	6.6	3.5	5	17	10	4.9	1.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
05...	--	--	7	0	--	--	--	--	--	--
19...	2.1	.5	8	0	5.8	3.1	.0	1.9	31	23

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
19...	.01	.00	.26	.28	.54	.55	.00	.00	80	20

604027151132000 - DOUGLAS LK NR KENAI AK

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT 04...	1215	20	6.4	9.0	6	0

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

604050151190700 - UNNAMED LK NE OF CABIN LK NR KENAI AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT					
19...	1120	<2	4.9	-1.0	4.0

604103151204900 - UNNAMED LK SE BERNICE LK NR KENAI AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
OCT						
19...	1545	<25	6.5	3.5	<3	0

604126151200300 - UNNAMED LK .5 MI ESE OF BERNICE LK NR KENAI AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT					
20...	1010	<25	6.8	.0	2.0

604127151125700 - BISHOP LK NR KENAI AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
OCT							
18...	1540	1.0	90	6.6	5.5	45	0

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT						
18...	.03	.06	.53	.59	.62	.04

604142151172600 - DOGBONE LK NR KENAI AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
19...	1625	1.0	21	5.4	3.5	<1	.00	.01	.42	.43	.43	.00

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

604142151200000 - UNNAMED LK .5 MI E OF BERNICE LK NR KENAI AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT				
20...	1000	E18	6.8	4.0

604200151010000 - SHADURA LK NR KENAI AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
05...	1020	--	12	5.5	6.5	--	--	--	--	--
18...	1255	1.0	12	5.4	3.5	3	7	7	2.6	.2

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
05...	--	--	2	0	--	--	--	--	--	--
18...	1.0	.4	1	0	3.3	2.1	.0	.4	9	11

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
18...	.02	.01	.24	.23	.47	.49	.01	.00	30	8

604221151184000 - ISLAND LK NR KENAI AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
18...	1700	1.0	50	6.6	6.0	2	18	2	5.0	1.4

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
18...	2.7	.8	20	0	2.7	3.2	.0	1.3	31	27

E ESTIMATED

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

604221151184000 - ISLAND LK NR KENAI AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
18...	.01	.00	.03	.18	.21	.22	.00	.00	60	0

604228151141000 - TIRMORE (SHORT PINE) LK NR KENAI AK

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
18...	1610	45	6.4	6.5	15	0	.01	.07	.28	.35	.36	.01

604305151150000 - WICK LK NR KENAI AK

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT							
18...	1645	1.0	14	5.4	7.0	2	0

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
18...	.01	.04	.30	.34	.35	.00

604316151163000 - UNNAMED LK 1 MI NE OF ISLAND LK NR KENAI AK

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT				
20...	1155	<25	6.4	2.5

604339151130800 - LAURA LK NR KENAI AK

DATE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT										
18...	1415	1.0	15	5.6	6.5	4	8	7	2.6	.4

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

604339151130800 - LAURA LK NR KENAI AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
OCT										
18...	1.4	.5	2	0	6.4	2.4	.0	.1	19	15

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT										
18...	.00	.00	.01	.28	.29	.29	.01	.00	20	4

604348151100700 - DANIELS LK NR KENAI AK

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT										
18...	1340	1.0	90	6.7	6.5	4	39	3	12	2.3

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
OCT										
18...	3.5	1.3	44	0	6.6	3.8	.1	.4	54	52

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT										
18...	.01	.00	.06	.23	.29	.30	.01	.00	30	4

614101149583700 - NANCY LK EAST ARM NR WILLOW AK

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
AUG											
24...	1055	.0	112	8.0	16.7	--	--	9.6	96	--	--
24...	1100	6.5	112	8.0	16.5	8	4.7	9.6	96	<1	K8
24...	1105	13	113	7.9	16.2	--	--	9.7	96	--	--
24...	1110	16	117	7.8	15.1	--	--	9.3	90	--	--
24...	1115	20	141	7.4	9.7	--	--	6.9	59	--	--
24...	1120	23	155	7.3	7.0	--	--	5.3	43	--	--
24...	1125	26	158	7.2	6.3	--	--	4.7	38	--	--
24...	1130	30	162	7.2	6.0	8	4.7	4.6	37	<1	K4
24...	1135	33	162	7.2	5.8	--	--	4.6	37	--	--
24...	1140	36	166	7.2	5.6	--	--	4.5	35	--	--
24...	1145	40	167	7.2	5.5	--	--	4.4	35	--	--
24...	1150	42	176	7.1	5.4	--	--	4.0	31	--	--
24...	1155	46	179	7.1	5.2	--	--	3.6	28	--	--

K NON-IDEAL COLONY COUNT

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

614101149583700 - NANCY LK EAST ARM NR WILLOW AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	K5	42	6	13	2.3	6.7	.6	44	0	1.7	9.6
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	K4	49	8	15	2.8	12	.8	50	0	1.7	22
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	5.6	72	61	.00	.01	.02	.01	.56	.49	.58
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	7.4	93	87	.29	--	.01	--	.38	--	.39
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.50	.50	.03	.02	.00	40	0	6.9	.4	1.72	.101
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	.68	.02	.02	.01	60	10	6.9	<.2	1.77	.162
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

K NON-IDEAL COLONY COUNT
NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

614113150001400 - NANCY LK CENTRAL BASIN NR WILLOW AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
AUG											
24...	1430	.1	108	8.0	17.4	--	--	9.8	101	--	--
24...	1431	6.5	109	8.0	17.0	8	5.0	10.5	106	K2	<1
24...	1434	13	109	7.9	16.2	--	--	10.9	108	--	--
24...	1436	16	118	7.7	14.1	--	--	10.0	94	--	--
24...	1438	20	128	7.5	10.2	--	--	9.2	80	--	--
24...	1440	23	127	7.4	8.0	--	--	8.7	72	--	--
24...	1442	26	128	7.4	6.5	--	--	8.7	69	--	--
24...	1444	30	126	7.3	5.6	--	--	8.7	67	--	--
24...	1446	33	125	7.3	5.0	--	--	8.2	63	--	--
24...	1448	42	123	7.2	4.4	--	--	4.3	32	--	--
24...	1450	52	122	7.2	4.0	8	5.0	3.0	22	K11	K1
24...	1452	56	129	7.2	4.0	--	--	1.8	13	--	--

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	K3	44	5	14	2.3	5.8	.6	48	0	2.2	8.6
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	K16	45	12	14	2.5	7.2	.8	40	0	1.5	13
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	4.6	68	62	.00	--	.01	--	.41	--	.42
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	8.3	80	68	.12	.14	.00	.01	.45	.47	.45
24...	--	--	--	--	--	--	--	--	--	--	--

K NON-IDEAL COLONY COUNT

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

614113150001400 - NANCY LK CENTRAL BASIN NR WILLOW AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	.42	.02	.02	.00	30	0	8.4	<.2	1.50	.081
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.48	.57	.02	.02	.01	60	10	6.9	.3	.484	.000
24...	--	--	--	--	--	--	--	--	--	--	--

614213150003600 - NANCY LK NORTH ARM NR WILLOW AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
AUG											
24...	0755	.1	101	7.9	16.2	--	--	10.5	106	--	--
24...	0800	6.5	101	7.8	16.3	8	4.1	10.2	103	38	<1
24...	0805	13	101	7.8	16.3	--	--	9.9	100	--	--
24...	0810	16	109	7.6	12.3	--	--	7.4	68	--	--
24...	0815	20	112	7.4	7.9	--	--	4.5	37	--	--
24...	0820	23	114	7.2	6.9	--	--	2.8	22	--	--
24...	0825	26	114	7.2	6.1	--	--	1.7	13	--	--
24...	0830	30	115	7.2	5.5	7	4.1	1.3	10	41	<1
24...	0835	33	124	7.1	4.8	--	--	1.2	9	--	--
24...	0840	36	127	7.0	4.6	--	--	1.2	9	--	--

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	K6	43	2	13	2.5	4.7	.5	50	0	1.4	6.1
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	<1	51	0	16	2.6	4.1	.7	64	0	2.3	4.9
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	5.2	63	58	.00	.01	.01	.00	.35	.31	.36
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.0	10	80	74	.01	--	.05	--	.37	--	.42
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

K NON-IDEAL COLONY COUNT

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

SOUTH-CENTRAL ALASKA--Continued

614213150003600 - NANCY LK NORTH ARM NR WILLOW AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	.31	.36	.02	.02	.00	350	0	6.6	.8	1.71	.086
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	.43	.04	.04	.01	660	610	5.6	.4	.871	.061
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

K NON-IDEAL COLONY COUNT
NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

NORTHWEST ALASKA

674454156122700 - MATCHARAK LK NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 11...	1045	1.0	250	7.9	-7.5	3.0	2	10.6	120	0	38
AUG 08...	1145	24	215	8.0	10.0	14.0	--	--	93	0	29

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 11...	6.1	6.0	.7	150	0	11	1.4	.3	4.6	142
AUG 08...	5.0	5.7	.7	120	0	10	1.3	.2	3.7	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 11...	142	.05	.01	38	2	0	0	0	3	10
AUG 08...	115	.02	--	--	--	--	--	--	--	--

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 11...	10	0	0	0	.0	0	5	0	0	20
AUG 08...	30	--	--	0	--	--	--	--	--	--

675748161423000 - TULUGAK LK NR NOATAK AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 02...	1400	265	6.9	.0	3.5	5	12.8	140	0	42

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 02...	7.5	2.4	1.4	166	0	2.6	3.9	.1	.7	148

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

NORTHWEST ALASKA--Continued

675748161423000 - TULUGAK LK NR NOATAK AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 02...	143	.02	.00	20	1	300	0	0	10

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 02...	10	0	0	.0	5	0	0	0	10

680058159164800 - OKOKLIK LK NR NOATAK AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 06...	1330	85	6.8	-13.5	3.0	8	8.2	37	0	9.8

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 06...	3.0	2.5	.7	48	0	2.9	1.9	.0	1.5	56

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 06...	47	.13	.00	20	1	200	0	1	40

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 06...	40	0	10	.0	4	0	0	0	10

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

NORTHWEST ALASKA--Continued

681510158185400 - FENIAK LK NR NOATAK AK

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 09...	1045	1.0	62	7.6	-7.5	1.5	1	12.3	35	7	4.3

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 09...	5.9	.3	.0	34	0	3.9	.3	.0	3.2	29

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 09...	35	.00	.00	0	1	100	0	0	0	20

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 09...	20	2	0	0	.0	3	1	0	0	10

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ARCTIC SLOPE ALASKA

683622160323000 - UNNAMED LK NR NUCLEUS MTN NR POINT LAY AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JUNE 1977 TO JUNE 1977

DATE	JUN 29,77
TIME	1205
TOTAL COUNT	3
DIVERSITY: PHYLUM	0.9
.CLASS	0.9
..ORDER	0.9
...FAMILY	0.9
....GENUS	0.9
....GENUS-INSECTA	0.0
ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....STICTOCHIRONOMUS	2
MOLLUSCA ()	
.BIVALVIA	
..NUCULOIDEA	
...SPHAERIIDAE	
....UNKNOWN GENUS	1
SAMPLING METHOD	ECKMAN DREDGE

690530154390600 - UNNAMED LK NW OF KAKVUIYAT BEND NR UMIAT AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
AUG 15, 1978	1500	36	6.3	9.5	22	0	.026	.003	.029	.021	.016	.003

690516154390600 - UNNAMED LK W OF KAKVUIYAT BEND NR UMIAT AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
AUG 15, 1978	1430	40	6.4	9.0	22	0	.000	.001	.001	.035	.013	.004

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

ARCTIC SLOPE ALASKA--Continued

692915156032500 - UNNAMED LK NR TITALUK R NR ATKASUK AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 19,77
TIME	1455
TOTAL COUNT	2
DIVERSITY: PHYLUM	1.0
.CLASS	1.0
..ORDER	1.0
...FAMILY	1.0
....GENUS	1.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #3	1
MOLLUSCA ()	
.BIVALVIA	
..NUCULOIDEA	
...SPHAERIIDAE	
....UNKNOWN GENUS	1
SAMPLING METHOD	ECKMAN DREDGE

693506153144200 - SQUARE LK NR UMIAT AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
APR 24, 1978	1630	10	375	7.6	1.0	0	9.5	<1	<1	180

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR 24, 1978	22	48	14	11	1.0	190	0	7.2	27

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 24, 1978	.2	.7	209	206	.69	.01	20	0	5.7

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

700042153040000 - UNNAMED LK 22.5 MI E OF VABM 297 FLO NR UMIAT AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 31,77
TIME	1700
TOTAL COUNT	2
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CONCHAPELOPIA,ARCTO,RHEO	2
SAMPLING METHOD	ECKMAN DREDGE

700955161271800 - SIKOLIK LK NR POINT LAY AK

DATE	JUL 7,77
TIME	1330
TOTAL COUNT	4
DIVERSITY: PHYLUM	0.8
.CLASS	0.8
..ORDER	0.8
...FAMILY	0.8
....GENUS	1.5
....GENUS-INSECTA	0.9

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #5	1
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....RHEOCRICOTOPUS	2
....UNKNOWN GENUS #5	1
SAMPLING METHOD	ECKMAN DREDGE

702212153184200 - UNNAMED LK SE OF VABM 128 DIM NR LONELY AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
APR 23, 1978	1200	500	7.0	-15.5	1.0	0	4.5	<1	<1	250

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

ARCTIC SLOPE ALASKA--Continued

702212153184200 - UNNAMED LK SE OF VABM 128 DIM NR LONELY AK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR 23...	16	84	8.8	13	1.3	280	0	3.3	30

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 23...	.1	2.0	281	282	.03	.01	160	680	5.0

702620157243000 - UNNAMED LK 2 MI S OF ATKASUK AK

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 4,77
TIME	1340
TOTAL COUNT	25
DIVERSITY: PHYLUM	1.0
.CLASS	1.0
..ORDER	1.4
...FAMILY	1.4
....GENUS	3.0
....GENUS-INSECTA	2.4

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..PLESIOPORA	
...NAIDIDAE	
....UNKNOWN GENUS	5
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	2
....UNKNOWN GENUS #2	3
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CHIRONOMUS	2
....CRICOTOPUS	3
....PARACHIRONOMUS	4
....PARATANYTARSUS	4
....POTTHASTIA	1
....SMITTIA	1
SAMPLING METHOD	ECKMAN DREDGE

702843157252200 - IKMAKRAK LK AT ATKASUK AK

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JUN 13... 1978	1515	68	4.0	K0	K0

K NON-IDEAL COLONY COUNT
NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

BEST DOCUMENT AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

ARCTIC SLOPE ALASKA--Continued

703200153390000 - TESHEKPUK LK S END NR LONELY AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR										
22,	1414	8.0	310	7.4	--	.5	--	--	--	--
22, 1978	1415	18	295	6.9	-13.5	1.5	1	2.6	<1	<1

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR										
22,	--	--	--	--	--	--	--	--	--	--
22, 1978	110	16	34	5.9	17	1.2	115	0	3.4	35

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
22,	--	--	--	--	--	--	--	--	--
22, 1978	.0	3.1	145	157	.17	.01	10	610	1.5

703306153461200 - TESHEKPUK LK SW END NR LONELY AK

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 28,77
TIME	1445
TOTAL COUNT	0
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0
....GENUS-INSECTA	0.0
SAMPLING METHOD	ECKMAN DREDGE

703812155221800 - UNNAMED LAKE E OF CHIFF # NR ATKASUK AK

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR									
22, 1978	1200	10	460	7.0	.5	2	8.3	<1	<1

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)
APR									
22, 1978	220	18	75	8.6	9.4	1.2	250	0	2.6

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS LAKE SITES

ARCTIC SLOPE ALASKA--Continued

703812155221800 - UNNAMED LAKE E OF CHIPP R NR ATKASUK AK--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
APR 22, 1978	30	.0	1.3	259	252	.11	.01	30	0

704219158241700 - LK TUVAK NR WALIK C NR ATKASUK AK

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

DATE	JUL 12,77
TIME	0920
TOTAL COUNT	6
DIVERSITY: PHYLUM	0.9
.CLASS	0.9
..ORDER	0.9
...FAMILY	0.9
....GENUS	0.9
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..PLESIOPORA	
...NAIDIDAE	
....UNKNOWN GENUS	2
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CHIRONOMUS	4
SAMPLING METHOD	ECKMAN DREDGE

705553154403800 - UNNAMED LK W OF SMITH BAY NR LONELY AK

DATE	JUL 15,77
TIME	1055
TOTAL COUNT	34
DIVERSITY: PHYLUM	1.0
.CLASS	1.0
..ORDER	1.0
...FAMILY	1.0
....GENUS	1.7
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ANNELIDA	
.OLIGOCHAETA	
..UNKNOWN ORDER	
...UNKNOWN FAMILY	
....UNKNOWN GENUS #1	12
....UNKNOWN GENUS #3	3
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....STICTOCHIRONOMUS	16
....TANYTARSUS	2
....UNKNOWN GENUS #1	1
SAMPLING METHOD	ECKMAN DREDGE

NOTE.--The sites above are arranged in order of ascending latitude (not in the usual downstream order).

ARCTIC SLOPE ALASKA--Continued

710746156312400 - LK SUNGOVOAK NR BARROW AK

WATER QUALITY DATA, WATER YEARS OCTOBER 1976 TO SEPTEMBER 1978

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

```
DATE                                     JUL 16,77
TIME                                       2030

TOTAL COUNT                                  22

DIVERSITY: PHYLUM                           0.3
           .CLASS                           0.3
           ..ORDER                          0.3
           ...FAMILY                        0.3
           ....GENUS                        0.3
           .....GENUS-INSECTA               0.0

 ORGANISM                                  COUNT

ANNELIDA
.OLIGOCHAETA
..UNKNOWN ORDER
...UNKNOWN FAMILY
....UNKNOWN GENUS #5                          1

ARTHROPODA (ARTHROPODS)
.INSECTA
..DIPTERA
...CHIRONOMIDAE
....PHAENOPSECTRA                            21

SAMPLING METHOD                          ECKMAN DREDGE
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711419156221400 - UNNAMED LK 2 MI E OF MAYOEAK R NR BARROW AK
BENTHIC INVERTEBRATE ANALYSES, JULY 1977 TO JULY 1977

```
DATE                                     JUL 15,77
TIME                                       2030

TOTAL COUNT                                  29

DIVERSITY PHYLUM                            0.2
           .CLASS                           0.2
           ..ORDER                          0.2
           ...FAMILY                        0.2
           ....GENUS                        1.2
           .....GENUS-INSECTA               1.0

 ORGANISM                                  COUNT

ANNELIDA
.OLIGOCHAETA
..PLESIOPORA
...NAIDIDAE
....UNKNOWN GENUS                             1

ARTHROPODA (ARTHROPODS)
.INSECTA
..DIPTERA
...CHIRONOMIDAE
....CHIRONOMUS                               21
....PROCLADIUS                                2
....PSECTROCLADIUS                            5

SAMPLING METHOD                          ECKMAN DREDGE
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BEST DOCUMENT AVAILABLE

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SOUTHEAST ALASKA

JUNEAU

582422134342001. Local number, CD04006618ABDD1001 85177.
LOCATION.--Lat 58°24'22", long 134°34'20", Hydrologic Unit 19060000, Mendenhall Loop Road, near Juneau.
Owner: U.S. Forest Service.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Bored unused water-table well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), screened 90 to 100 ft (27.4 to 30.5 m).
DATUM.--Altitude of land-surface datum is 69 ft (21.0 m). Measuring point: Base of recorder shelter 5.00 ft (1.52 m) above land-surface datum.
REMARKS.--Water level-fluctuates with seasonal changes in flow of the Mendenhall River, 100 ft (30 m) southwest of the well.
PERIOD OF RECORD.--June 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.35 ft (0.11 m) above land-surface datum, Oct. 2, 1970; lowest, 10.26 ft (3.13 m) below land-surface datum, Mar. 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.39	2.34	5.60	7.23	6.28	6.44	6.02	5.09	3.85	2.93	3.92	5.35
10	3.78	3.08	5.70	7.54	6.20	6.83	5.86	4.65	4.05	2.86	3.96	5.75
15	1.99	3.52	6.30	7.67	6.24	6.79	5.34	4.77	4.79	3.35	4.07	6.03
20	.73	3.78	6.90	7.87	6.36	6.45	5.53	4.57	4.81	3.03	4.11	5.80
25	.90	4.22	7.21	7.58	6.08	5.96	5.57	4.25	4.84	3.27	4.17	5.14
EOM	1.78	5.12	7.20	6.39	6.21	6.04	5.32	4.71	4.29	3.51	4.65	5.12

WTR YEAR 1978 HWL 0.65 OCT. 21 & 22, 1977 LWL 8.14 JAN. 22 & 23, 1978

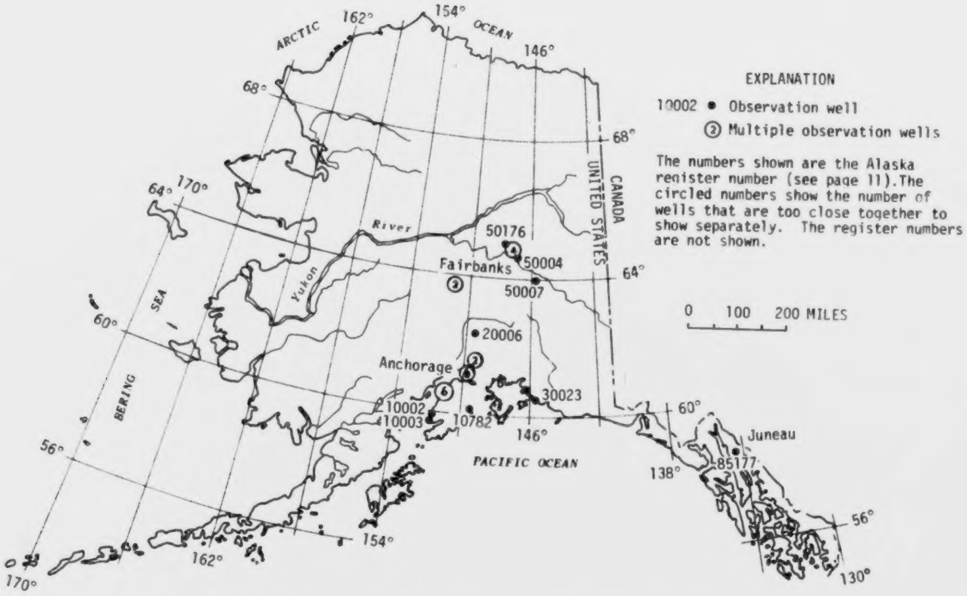
ARCTIC
162°
154°
OCEAN
146°
68°
68°
64°
170°
River
Yukon
UNITED STATES
CANADA
50176
50004
Fairbanks
③
50007
64°
60°
SEA
20006
Anchorage
③
④
⑥
30023
10002
10003
10782
146°
60°
BERING
56°
PACIFIC OCEAN
138°
Juneau
85177
56°
154°
162°
170°
130°
EXPLANATION
10002 ● Observation well
② Multiple observation wells
The numbers shown are the Alaska register number (see page 11). The circled numbers show the number of wells that are too close together to show separately. The register numbers are not shown.
0 100 200 MILES

Figure 4.--Map showing location of ground-water observation wells.

SOUTH-CENTRAL ALASKA

CORDOVA

603228145442601. Local number, CC01500327BDCB1004 30023.
LOCATION.--Lat 60°32'28", long 145°14'26", Hydrologic Unit 19050003, Lefeure Street near west end of Eyak Lake, Cordova. Owner: City of Cordova.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled public-supply (unused) artesian well, diameter 10 in (0.25 m), depth 82 ft (25.0 m), backfilled to 71 ft (21.6 m), screened 48.5 to 71 ft (14.8 to 21.6 m).
DATUM.--Altitude of land-surface datum is 32 ft (10 m). Measuring point: Top of shelter floor 4.00 ft (1.22 m), above land-surface datum.
REMARKS.--Major water-level fluctuations caused by variable pumping of nearby production wells.
PERIOD OF RECORD.--February 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.82 ft (2.08 m) below land-surface datum, Nov. 30, 1976; lowest, 46.88 ft (14.29 m) below land-surface datum, Dec. 28, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.68	9.98	21.58	26.26	17.95	17.20	12.06	---	15.39	15.59	15.71	15.83
2	16.93	10.10	21.60	26.35	14.35	17.42	11.47	---	15.36	15.63	15.76	15.85
3	17.07	10.32	21.44	26.48	17.80	17.54	12.14	---	15.43	15.64	15.84	15.91
4	17.19	10.39	21.70	26.60	18.04	17.65	11.78	---	15.63	15.60	15.85	16.02
5	17.30	10.60	21.11	26.62	17.56	17.66	11.54	---	15.80	15.06	15.75	16.00
6	17.27	10.61	21.59	26.66	17.21	17.79	16.45	---	15.88	14.92	15.72	15.98
7	17.26	10.77	21.83	26.78	16.96	12.14	17.13	---	15.94	14.92	15.80	15.94
8	17.36	10.92	21.94	26.67	16.95	11.83	16.90	---	16.06	15.06	12.20	15.70
9	17.19	11.03	21.96	25.75	17.00	12.00	16.74	---	16.12	15.27	12.12	15.59
10	16.87	11.08	22.01	25.31	17.10	12.00	16.78	---	14.40	15.40	14.93	15.59
11	16.51	11.09	21.99	20.96	16.32	12.09	17.02	---	16.17	15.53	15.70	15.53
12	16.49	11.26	22.24	20.65	17.38	17.40	17.10	---	16.40	15.60	15.63	15.06
13	16.54	11.29	27.42	25.17	17.27	17.68	17.22	---	16.36	15.63	15.27	14.20
14	16.22	11.31	27.55	25.26	12.65	17.80	17.27	---	16.54	15.60	15.24	14.16
15	15.70	11.52	27.74	18.76	11.40	17.51	17.25	---	16.12	15.60	15.23	14.24
16	15.43	11.64	27.62	17.82	11.28	17.43	17.26	---	16.05	15.67	15.25	14.32
17	15.43	11.81	22.49	18.08	16.81	17.30	---	---	15.84	15.78	15.23	14.40
18	---	11.85	22.52	17.74	11.56	11.97	---	---	15.27	15.85	15.24	14.30
19	10.35	11.85	23.19	17.15	10.97	10.80	---	---	15.16	15.76	15.27	14.10
20	13.77	11.90	23.20	16.91	11.28	10.67	---	---	15.18	15.55	15.20	13.96
21	9.58	11.91	22.60	16.92	10.90	11.24	---	---	15.35	15.35	15.28	13.97
22	9.59	11.97	22.51	17.14	16.50	11.23	---	---	15.55	15.18	15.33	14.18
23	9.62	18.94	27.54	14.66	16.87	13.83	---	---	15.60	15.18	15.39	14.45
24	9.62	20.22	27.96	16.83	16.69	17.10	---	---	15.64	15.20	15.42	14.65
25	9.71	20.59	27.78	16.87	11.04	17.31	---	15.93	15.65	15.20	15.50	14.79
26	9.89	20.83	22.52	15.26	10.60	17.46	---	15.93	15.25	15.21	15.66	14.89
27	10.03	20.97	21.97	17.26	10.65	17.50	---	15.97	15.22	15.26	15.72	14.93
28	9.84	21.08	25.11	17.42	16.42	17.54	---	16.06	15.24	15.31	15.79	15.07
29	9.64	21.11	26.13	17.57	---	17.35	---	16.14	15.39	15.44	15.83	15.18
30	9.66	21.38	26.30	17.68	---	17.26	---	15.95	15.49	15.57	15.83	15.24
31	9.81	---	26.42	17.76	---	16.66	---	15.68	---	15.63	15.73	---
MIN	9.58	9.98	21.11	14.66	10.60	10.67	11.47	15.68	14.40	14.92	12.12	13.96

WTR YEAR 1978 HWL 9.58 OCT 21, 1977 LWL 28.06 DEC 23, 1977

BEST DOCUMENT AVAILABLE

SOUTH-CENTRAL ALASKA

SEWARD

600808149254802. Local number, SB00100134CADC2003 10782.

LOCATION.--Lat 60°07'52", long 149°25'56", Hydrologic Unit 1905003, at Fort Raymond Army recreation camp, near Seward. Owner: City of Seward.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused artesian test well, diameter 8 in (0.20 m), depth 141 ft (43.0 m), screen reportedly installed at bottom of well.

DATUM.--Altitude of land-surface datum is 46 ft (14 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Levels sometimes drawn down as much as 1.5 ft (0.5 m) by nearby pumping.

PERIOD OF RECORD.--July-August 1964, October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.07 ft (3.98 m) below land-surface datum, Dec. 1, 1976; lowest, 25.75 ft (7.85 m) below land-surface datum, Dec. 15, 1977, during test pumping of City Production Well 4.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.27	21.05	23.41	23.69	23.83	20.97	24.32	22.89	21.07	22.25	23.50	23.10
2	21.33	21.17	23.32	23.70	23.66	21.19	24.28	23.00	21.14	22.25	23.50	23.10
3	21.39	21.30	23.42	23.73	23.88	21.50	24.34	22.88	21.27	21.88	23.48	23.13
4	21.45	21.40	24.07	23.77	23.98	21.42	24.39	22.85	21.29	22.28	23.43	23.20
5	21.58	21.52	23.54	23.80	23.57	21.49	24.77	22.17	21.28	22.33	23.44	23.18
6	21.60	21.61	23.45	23.82	24.00	22.32	24.65	22.44	21.27	21.75	23.49	23.27
7	21.67	21.75	23.48	23.83	24.11	22.43	24.74	22.40	21.23	22.21	23.62	23.22
8	21.73	21.78	23.45	23.80	24.08	22.63	24.72	22.35	21.26	22.25	23.60	23.22
9	21.70	21.78	23.41	23.83	24.09	22.86	24.64	22.65	21.42	22.26	23.57	23.27
10	21.53	21.72	23.27	23.86	24.19	23.10	24.62	22.70	21.30	22.31	23.68	23.27
11	21.22	21.69	23.19	24.15	24.22	23.28	23.96	22.71	21.27	22.36	23.75	23.30
12	21.00	21.77	23.19	23.81	24.25	23.40	24.27	22.10	21.33	21.84	23.78	23.25
13	20.77	21.78	23.20	23.71	24.27	23.57	24.27	21.92	21.40	21.78	23.76	22.85
14	20.52	21.88	23.17	23.79	24.28	23.69	24.61	21.85	21.42	21.86	23.17	22.52
15	20.42	22.11	23.61	23.75	24.27	23.54	24.58	21.78	21.50	22.77	23.75	22.28
16	20.37	22.23	23.46	23.80	23.90	23.83	24.57	21.73	21.51	22.83	22.99	22.17
17	20.43	22.35	23.48	23.83	24.35	23.75	24.57	21.71	21.97	23.01	22.87	22.08
18	20.56	22.47	23.41	23.90	24.34	23.78	24.57	22.17	21.98	23.18	22.85	22.05
19	20.67	22.59	23.43	23.61	24.22	23.76	24.64	22.27	21.55	23.15	22.83	21.96
20	20.71	22.69	23.46	23.41	24.07	23.87	24.64	22.34	21.52	22.55	23.40	22.02
21	20.73	22.74	23.48	23.30	23.88	23.92	24.63	22.33	21.62	23.07	23.44	22.05
22	20.72	22.82	23.49	23.28	23.72	23.97	25.07	22.32	21.55	23.28	23.03	22.12
23	20.77	22.88	23.53	23.24	23.20	24.00	25.07	21.73	21.43	23.41	22.88	22.20
24	20.73	22.94	23.53	23.05	22.39	24.02	24.98	21.41	21.53	22.67	22.90	22.27
25	20.64	22.97	23.55	22.94	21.40	23.80	24.52	21.27	21.97	22.60	23.04	22.33
26	20.54	23.03	23.53	22.90	21.00	24.47	24.27	21.11	21.84	23.39	23.05	22.36
27	20.53	23.12	23.57	22.90	20.82	24.25	24.07	21.00	21.67	23.44	23.10	22.40
28	20.53	23.12	23.60	22.94	20.52	24.30	23.22	20.98	21.61	23.49	23.13	22.42
29	20.60	23.22	23.65	23.00	---	24.25	23.20	20.98	22.08	23.53	23.13	22.48
30	20.73	23.25	23.65	23.08	---	24.24	22.96	21.01	22.18	23.60	23.15	22.53
31	20.87	---	23.68	23.13	---	24.27	---	21.04	---	23.62	23.12	---
MIN	20.37	21.05	23.17	22.90	20.52	20.97	22.96	20.98	21.07	21.75	22.83	21.96

WTR YEAR 1978 HWL 20.37 OCT 16, 1977 LWL 25.75 DEC 15, 1977

KENAI PENINSULA BOROUGH

594515151492201. Local number, SC00501510CCAC1001 10003.

LOCATION.--Lat 59°45'15", long 151°49'22", Hydrologic Unit 19050002, mile 161, Old Sterling Highway near Anchor Point. Owner: Raymond Williams.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), perforated liner 91 to 100 ft (27.7 to 30.5 m).

DATUM.--Altitude of land-surface datum is 240 ft (73 m). Measuring point: top of casing plate 4.80 ft (1.46 m) below land-surface datum.

PERIOD OF RECORD.--May 1962 to September 1970, May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.85 ft (10.93 m) below land-surface datum, May 31, 1963; lowest measured 47.89 ft (14.60 m) below land-surface datum, June 20, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	37.25	MAR 17	39.59	JUL 12	38.41	SEP 28	38.82
JAN 11	38.95	JUN 7	38.71	AUG 16	38.60		

SOUTH-CENTRAL ALASKA

KENAI PENINSULA BOROUGH--Continued

595604151432301. Local number, SC00301418ADBB004 10002 (revised).
LOCATION.--Lat 59°55'17", long 151°44'33" (revised), Hydrologic Unit 19050002, at Happy Valley, mile 196, Sterling Highway. Owner: U.S. Geological Survey.
AQUIFER.--Gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered water-table observation well, diameter 2 in (0.05 m), depth 38 ft (11.6 m), screened from 35 to 38 ft (10.7 to 11.6 m).
DATUM.--Altitude of land-surface datum is 150 ft (46 m). Measuring point: Top of pipe, 3.20 ft (0.98 m) above land-surface datum.
PERIOD OF RECORD.--June 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.27 (1.00 m) below land-surface datum, May 4, 1977; lowest measured, 12.18 ft (3.71 m) below land-surface datum, Mar. 3, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 11	10.13	JUN 7	10.23	AUG 16	10.59
MAR 17	11.23	JUL 12	10.40	SEP 28	10.94

602926151042201. Local number, SB00501029CDAC1001 10001.
LOCATION.--Lat 60°29'26", long 151°04'22", Hydrologic Unit 19050002, Mt. Redoubt Way, Soldotna. Owner: Charles S. Parker.
AQUIFER.--Gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (0.20 m), depth 100 ft (30.5 m), cased to 100 ft (30.5 m), perforated 81 to 97 ft (24.7 to 29.6 m).
DATUM.--Altitude of land-surface datum is 94 ft (29 m). Measuring point: Shelter floor at top of casing 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--March 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.38 ft (0.73 m) below land-surface datum, June 28, 1963; lowest, 13.11 ft (4.00 m) below land-surface datum; occurred sometime between Feb. 15 and Apr. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.26	7.08	6.64	9.16	6.89	9.90	5.73	7.95	8.13	6.85	8.39	7.07
10	5.34	6.20	10.00	7.59	6.11	9.42	6.81	8.10	7.48	6.73	7.65	6.87
15	6.83	7.81	7.40	7.84	9.37	7.74	7.59	8.11	6.95	7.73	7.44	6.90
20	6.02	6.30	9.58	7.07	10.00	9.68	7.06	7.80	6.54	7.23	7.00	6.76
25	8.40	6.69	7.45	9.89	7.52	7.15	7.76	6.90	6.63	7.78	7.50	8.50
EOM	5.70	9.13	7.20	8.09	9.68	8.19	7.91	6.98	7.18	8.48	7.22	6.96

WTR YEAR 1978 HWL 5.21 SEP 24, 1978 LWL 11.71 FEB 20, 1978

603511151133003. Local number, SB00601128BBDA3003 10883.
LOCATION.--Lat 60°35'11", long 151°13'30", Hydrologic Unit 19050002, by FAA airport towers, City of Kenai. Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 6 in (0.15 m), depth 12 ft (3.7 m), cased to 11 ft (3.4 m), perforated 7 to 11 ft (2.1 to 3.4 m).
DATUM.--Altitude of land-surface datum is 100 ft (30 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.
REMARKS.--Minimum level that can be recorded is 8.64 ft (2.63 m) below land-surface datum.
PERIOD OF RECORD.--October 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.26 ft (0.38 m) below land-surface datum, May 9, 1972; lowest recorded, 8.64 ft (2.63 m) below land-surface datum, Apr. 5 to 18, 1976, when float rested on obtrusion in well.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.32	3.32	5.11	6.47	6.94	7.16	7.11	3.23	4.13	3.94	4.88	4.95
10	3.25	3.43	5.29	6.62	7.17	7.32	5.04	3.28	4.36	4.35	5.02	3.63
15	3.33	3.78	5.77	6.79	7.26	7.38	2.97	3.37	3.77	4.53	5.38	3.92
20	3.35	4.03	6.18	6.84	7.32	7.41	2.96	3.62	3.66	4.24	5.47	3.94
25	3.17	4.17	6.30	6.96	7.26	7.46	2.99	3.65	3.63	3.66	5.79	4.11
EOM	3.25	4.67	6.39	7.08	7.17	7.33	3.09	3.89	4.06	4.43	5.80	4.41

WTR YEAR 1978 HWL 2.96 APR 19 & 20, 1978 LWL 7.49 MAR 30, 1978

KENAI PENINSULA BOROUGH--Continued

603846151002701. Local number, SB00601003ABAC1001 10646.
LOCATION.--Lat 60°38'46", long 151°00'27", Hydrologic Unit 19050002, Marathon Oil Well Road in Beaver Creek basin, Kenai area. Owner: Marathon Oil.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 65 ft (19.8 m), cased to 65 ft (19.8 m).
DATUM.--Altitude of land-surface datum is 150 ft (46 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
REMARKS.--Levels unaffected by distant pumping.
PERIOD OF RECORD.--August 1968 to November 1973, April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.77 ft (2.98 m) below land-surface datum, October 20, 1972; lowest 14.26 ft (4.35 m) below land-surface datum, April 4, 1969.

HIGHEST WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.69	10.63	10.67	10.61	10.50	10.72	11.16	10.35	10.82	10.92	11.22	11.47
10	10.66	10.62	10.56	10.62	10.58	10.82	10.92	10.40	10.87	11.01	11.28	11.34
15	10.69	10.65	10.64	10.61	10.56	10.79	10.45	10.47	10.85	11.06	11.36	11.37
20	10.62	10.67	10.70	10.62	10.58	10.75	10.01	10.61	10.78	11.09	11.42	11.39
25	10.57	10.60	10.61	10.65	10.58	10.88	10.01	10.63	10.79	11.00	11.51	11.43
EOM	10.62	10.67	10.62	10.63	10.68	11.03	10.17	10.74	10.84	11.14	11.55	11.44

WTR YEAR 1978 HWL MEASURED 9.99 APR 20, 1978 LWL 11.60 SEP 4, 1978

604036151204303. Local number, SB00701223CCDB3008 10004.
LOCATION.--Lat 60°40'36", long 151°20'43", Hydrologic Unit 19050002, mile 1, Miller Loop Road, North Kenai. Owner: Collier Carbon and Chemical Company.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (0.15 m), depth 112 ft (34.1 m), screened 106 to 110 ft (32.3 to 33.5 m).
DATUM.--Land-surface datum is 129.7 ft (39.5 m) National Geodetic Vertical Datum (revised). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.
REMARKS.--Large water-level fluctuations caused by nearby pumping. Well also known as Collier's 5B.
PERIOD OF RECORD.--December 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.52 ft (14.18 m) below land-surface datum, Feb. 7, 1968; lowest, 65.94 ft (20.10 m) below land-surface datum, June 16, 1978.

WATER LEVEL. IN FEET BELOW LAND SURFACE DATUM. WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.70	56.65	57.65	58.62	59.18	59.05	59.39	58.81	60.25	59.94	60.93	59.27
2	57.58	56.06	55.12	58.47	59.78	58.92	59.44	58.83	60.41	59.93	60.71	59.47
3	54.58	56.34	53.08	58.66	60.08	59.43	59.87	58.54	60.50	59.08	59.81	60.20
4	53.37	56.11	52.64	58.61	60.34	59.17	55.70	58.95	61.06	55.38	60.05	60.28
5	53.99	56.60	55.10	58.61	60.35	59.17	54.38	59.28	60.60	56.90	60.13	59.92
6	53.48	57.42	54.63	58.89	60.27	59.22	56.69	59.52	61.58	59.43	60.29	60.37
7	54.13	57.41	52.85	58.48	56.58	59.23	58.61	58.98	61.35	59.72	60.29	60.10
8	54.62	57.35	52.18	58.55	53.97	59.43	58.97	59.47	61.31	59.33	60.93	60.12
9	53.65	57.93	51.91	58.96	53.36	59.41	59.03	59.38	60.88	59.28	60.87	60.13
10	53.00	58.14	51.66	59.29	56.70	59.60	59.13	59.53	60.06	59.87	60.48	60.37
11	55.17	58.14	54.08	58.66	58.95	56.10	59.06	59.64	60.91	60.07	60.38	60.78
12	56.66	58.05	57.62	58.79	59.27	54.74	59.23	60.23	60.92	60.58	60.60	60.21
13	53.54	58.32	58.56	58.49	59.49	57.62	59.40	60.44	63.70	60.58	60.68	60.20
14	52.83	58.17	58.74	58.75	59.00	59.30	59.39	60.44	60.58	60.58	58.15	60.63
15	55.78	58.52	58.32	58.90	57.95	59.38	59.20	60.10	59.52	60.27	56.29	60.71
16	55.86	58.02	58.41	58.77	58.38	58.83	59.96	59.09	64.01	60.50	55.87	60.42
17	55.82	58.21	58.51	58.61	58.93	58.14	59.31	59.11	62.13	60.40	58.60	60.17
18	56.42	58.08	57.88	58.59	59.07	58.12	59.18	59.36	61.73	60.40	59.78	60.64
19	55.27	58.08	57.91	59.04	59.45	59.70	59.15	58.79	61.15	60.36	60.18	60.53
20	55.60	58.20	58.05	59.15	59.83	59.79	58.79	58.78	61.16	60.29	60.20	60.62
21	55.90	58.66	58.26	59.11	59.27	59.69	59.56	59.51	61.16	60.24	60.30	60.68
22	55.87	58.62	58.38	58.92	59.56	59.57	59.47	59.50	60.96	60.53	60.08	60.83
23	55.90	58.67	58.24	58.36	59.42	59.12	59.25	59.72	60.85	60.28	60.02	61.01
24	55.70	58.84	57.65	58.15	59.66	58.98	59.15	59.75	60.61	60.17	59.47	60.81
25	55.95	58.94	57.92	58.22	59.30	59.07	58.42	58.96	60.60	60.32	56.90	60.73
26	56.36	59.17	58.09	58.16	58.91	59.39	56.30	59.85	60.97	60.11	57.20	55.84
27	56.17	59.08	58.69	57.96	59.03	59.69	54.97	59.40	60.15	60.00	58.12	55.37
28	56.08	58.88	59.01	58.72	59.04	59.88	57.40	59.42	60.07	59.94	55.85	58.20
29	56.03	58.35	58.18	58.64	---	59.54	58.58	59.42	60.24	60.44	54.48	60.09
30	56.25	58.03	58.45	58.96	---	59.62	58.56	59.85	60.23	61.27	54.18	60.50
31	55.92	---	58.51	59.08	---	59.53	---	60.30	---	61.80	57.65	---
MIN	52.83	56.06	51.66	57.96	53.36	54.74	54.38	58.54	59.52	55.38	54.18	55.37

WTR YEAR 1978 HWL 51.66 DEC 10, 1977 LWL 65.94 JUN 16, 1978

SOUTH-CENTRAL ALASKA

KENAI PENINSULA BOROUGH--Continued

604133151214803. Local number, SB00701215DCBC3 11216.
LOCATION.--Lat 60°41'33", long 151°21'48", Hydrologic Unit 19050002, Bernice Lake campground, North Kenai.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled water-table test well, diameter 6 in (0.15 m), depth 52.4 ft (16.0 m), cased to 52.4 ft (16.0 m).
DATUM.--Land-surface datum is 84.6 ft (25.8 m) above National Geodetic Vertical Datum. Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.
REMARKS.--Well is 4 ft (1.2 m) east of well 10941.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.78 ft (2.98 m) below land-surface datum, June 23, 1977; lowest, 13.37 ft (4.08 m) below land-surface datum, Sept. 10 and 14, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, JUNE TO SEPTEMBER 1977
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	9.99	10.33	10.58
10									---	10.05	10.33	10.53
15									---	10.10	10.27	10.54
20									---	10.15	10.25	10.53
25									9.82	10.19	10.37	10.26
EOM									9.90	---	10.50	10.13

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.32	10.57	10.98	11.39	11.62	11.88	12.21	11.73	12.10	12.47	12.75	13.30
10	10.39	10.57	10.99	11.45	11.69	11.90	12.22	11.62	12.08	12.55	12.83	13.28
15	10.49	10.66	11.10	11.52	11.79	12.03	12.18	11.58	12.23	12.55	12.89	13.32
20	10.52	10.74	11.20	11.58	11.85	12.08	12.12	11.65	12.32	12.58	12.97	13.25
25	10.56	10.75	11.24	11.58	11.87	12.12	12.02	11.77	12.37	12.62	12.99	13.31
EOM	10.56	10.91	11.33	11.69	11.90	12.20	11.92	11.97	12.42	12.67	13.18	13.32

WTR YEAR 1978 HWL 10.26 OCT 1, 1977 LWL 13.37 SEP 10 & 14, 1978

604133151214802. Local number, SB00701215DCBC2004 10941.
LOCATION.--Lat 60°41'33", long 151°21'48", Hydrologic Unit 19050002, Bernice Lake campground, North Kenai.
Owner: State of Alaska.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled artesian test well, diameter 6 in (0.15 m), depth 202 ft (61.6 m), cased to 191 ft (58.2 m), screened 191 to 196 ft (58.2 to 59.7 m).
DATUM.--Land-surface datum is 84.6 ft (25.8 m) National Geodetic Vertical Datum (revised). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--June 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.63 ft (2.94 m) below land-surface datum, Dec. 15, 16, and 25, 1972; lowest, 14.08 ft (4.29 m) below land-surface datum, Sept. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.01	11.23	11.60	11.99	12.21	12.44	12.78	12.33	12.75	13.08	13.36	14.02
10	11.10	11.20	11.59	12.06	12.28	12.42	12.79	12.25	12.67	13.16	13.43	13.90
15	11.20	11.28	11.71	12.13	12.42	12.62	12.78	12.25	12.87	13.13	13.50	13.97
20	11.21	11.37	11.79	12.18	12.48	12.69	12.71	12.33	12.97	13.15	13.61	13.85
25	11.25	11.36	11.84	12.17	12.46	12.72	12.64	12.42	13.00	13.20	13.57	13.94
EOM	11.23	11.53	11.94	12.31	12.49	12.80	12.58	12.62	13.06	13.27	13.81	13.92

WTR YEAR 1978 HWL 10.96 OCT 1, 1977 LWL 14.08 SEP 10, 1978

GROUND-WATER LEVELS

SOUTH-CENTRAL ALASKA

MUNICIPALITY OF ANCHORAGE

611001149534601. Local number, SB01200401AABB1001 00590.
LOCATION.--Lat 61°10'01", long 149°53'46", Hydrologic Unit 19050002, Arctic Boulevard at Alaska Railroad crossing, Anchorage. Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 250.5 ft (76.4 m), cased to 247 ft (75.3 m).
DATUM.--Altitude of land-surface datum is 105 ft (32 m). Measuring point: Top of casing 3.94 ft (1.20 m) above land-surface datum.
REMARKS.--Water levels affected by local and Anchorage area pumping.
PERIOD OF RECORD.--March 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.35 ft (2.55 m) above land-surface datum, Oct. 31, 1957; lowest, 31.17 ft (9.50 m) below land-surface datum, July 19, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.74	24.13	24.08	18.29	18.20	17.05	18.65	26.42	28.84	27.88	26.99	26.95
10	24.43	24.35	23.10	18.50	16.74	17.67	19.59	26.95	29.54	27.88	27.12	26.42
15	24.25	24.49	19.46	19.14	16.68	18.09	21.50	27.38	30.52	27.46	27.31	25.62
20	24.25	24.99	19.59	19.13	16.60	18.25	23.39	27.88	30.66	27.19	27.08	24.12
25	24.12	24.44	18.23	18.83	17.09	18.46	24.72	28.24	29.50	26.98	26.86	22.75
EOM	24.08	24.41	18.37	18.84	16.60	18.54	25.69	28.54	28.46	26.92	26.92	22.69

WTR YEAR 1978 HWL 16.60 FEB 19 & 20, 1978 LWL 30.85 JUN 18, 1978

611049149545101. Local number, SB01300436BAAC1041 02368.
LOCATION.--Lat 61°10'49", long 149°54'51", Hydrologic Unit 19050002, Harding Drive and 45th Street, Anchorage. Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 18.5 ft (5.6 m), screened 13.5 to 18.5 ft (4.1 to 5.6 m).
DATUM.--Altitude of land-surface datum is 88 ft (26.8 m). Measuring point: Top of casing cap 2.50 ft (0.76 m) above land-surface datum.
PERIOD OF RECORD.--June 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.57 ft (3.83 m) below land-surface datum, Oct. 23, 1975; lowest measured, 13.52 ft (4.12 m) below land-surface datum, Sept. 23, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	13.36	DEC 22	13.05	FEB 15	13.32	APR 18	13.14	JUN 13	13.24	AUG 15	12.87
NOV 21	12.80	JAN 19	13.22	MAR 17	13.38	MAY 17	13.08	JUL 13	12.87	SEP 18	12.90

611149149553901. Local number, SB01300423DDDB1002 00280.
LOCATION.--Lat 61°11'49", long 149°55'39", Hydrologic Unit 19050002, West Northern Lights Boulevard and Lahonda Drive, Anchorage. Owner: Municipality of Anchorage.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), depth 283 ft (86.3 m), screened 278 to 283 ft (84.7 to 86.3 m).
DATUM.--Altitude of land-surface datum is 47 ft (14 m). Measuring point: Top of casing 1.30 ft (0.40 m) above land-surface datum.
REMARKS.--Water level affected by pumping in the Anchorage area. Tide effect in well is about 0.2 ft (.06 m).
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, flowing over top of casing, 1962 to 1963; lowest, 13.02 ft (3.97 m) below land-surface datum, April 2, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.34	6.31	6.46	4.16	3.91	3.75	4.20	7.64	8.85	8.27	7.79	7.66
10	6.27	6.22	5.98	3.91	4.15	3.86	4.75	7.70	9.01	8.03	7.86	7.53
15	6.21	6.36	5.44	4.53	4.06	3.95	5.55	7.87	9.18	7.97	8.13	7.23
20	6.21	7.02	5.18	4.29	3.89	3.86	6.34	8.28	9.26	8.12	7.90	6.73
25	6.12	6.82	4.99	4.59	3.72	3.93	6.73	8.11	8.46	7.94	8.01	6.48
EOM	6.23	6.64	4.46	4.57	3.97	4.07	7.10	8.61	8.39	8.07	7.64	6.39

WTR YEAR 1978 HWL 3.60 MAR 7, 1978 LWL 9.82 JUN 9, 1978

SOUTH-CENTRAL ALASKA

MUNICIPALITY OF ANCHORAGE--Continued

611311149510401. Local number, SB01300317BDAD1003 00114.

LOCATION.--Lat 61°13'11", long 149°51'04", Hydrologic Unit 19050002, 3rd and Concrete Avenues, Anchorage. Owner: Municipality of Anchorage.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 8 in (0.20 m), depth 230 ft (70.1 m), slotted 162 to 182 ft (49.4 to 55.5 m) and 190 to 201 ft (57.9 to 61.3 m).

DATUM.--Land-surface datum is 129.3 ft (39.4 m) National Geodetic Vertical Datum (revised). Measuring point: Top of coupling on casing cap 2.66 ft (0.81 m) above land-surface datum (revised).

REMARKS.--Water-level fluctuation caused mainly by pumping of local municipal wells. Datum was established prior to the 1964 earthquake; no adjustments have been determined.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.88 ft (8.80 m) below land-surface datum, Nov. 29, 1957; lowest measured, 128.17 (39.07 m) below land-surface datum, Apr. 19, 1976.

CORRECTION.--Levels published last year are 0.86 ft (0.26 m) too high.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	54.96	DEC 23	63.07	FEB 14	61.43	APR 17	63.96	JUN 12	125.60	SEP 18	112.84
NOV 21	59.96	JAN 19	66.51	MAR 16	61.26	MAY 16	118.45	JUL 13	107.39		

611336149454401. Local number, SB01300311CDAD1003 00067.

LOCATION.--Lat 61°13'36", long 149°45'44", Hydrologic Unit 19050002, near Glenn Highway and Boniface Parkway, Anchorage. Owner: U.S. Air Force.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), depth 187 ft (57.0 m), cased to 187 ft (57.0 m) (revised).

DATUM.--Altitude of land-surface datum is 210 ft (64 m). Measuring point: Top of casing 3.90 ft (1.19 m) above land-surface datum.

REMARKS.--Water levels affected by pumping in the Anchorage area.

PERIOD OF RECORD.--September 1959 to October 1962, September 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.88 ft (4.54 m) below land-surface datum, Oct. 28, 1960; lowest, 34.77 ft (10.60 m) below land-surface datum, May 14 and 18, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.08	21.25	22.74	22.62	23.81	---	26.03	26.25	26.08	24.77	---	24.10
10	21.48	21.71	21.92	22.92	24.50	---	25.36	26.11	25.98	24.83	---	24.54
15	21.17	22.91	22.81	23.04	23.86	---	26.35	26.25	25.85	---	---	24.80
20	21.02	---	22.88	23.46	24.66	25.62	27.99	26.36	25.59	---	---	23.78
25	21.32	22.46	23.26	23.20	---	25.81	26.90	26.03	25.27	---	---	24.09
EOM	21.38	22.36	22.70	23.73	---	26.07	26.06	26.12	24.97	---	23.85	24.60

WTR YEAR 1978 HWL 21.02 OCT 20, 1977 LWL 28.20 APR 20, 1978

611444149415401. Local number, SB01300206DBBA1004 00017.

LOCATION.--Lat 61°14'41", long 149°41'54", Hydrologic Unit 19050002, Arctic Valley Road, Fort Richardson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 6 in (0.15 m), depth 670 ft (204 m), cased to 134 ft (40.8 m), backfilled with gravel to 134 ft (40.8 m) and plugged, perforated 90 to 120 ft (27.4 to 36.6 m) and 130 to 134 ft (39.6 to 40.8 m).

DATUM.--Altitude of land-surface datum is 294 ft (90 m). Measuring point: Top of shelter floor 1.95 ft (0.59 m) above land-surface datum.

REMARKS.--Water levels affected by pumping in the Anchorage area.

PERIOD OF RECORD.--August 1954 to June 1962, September 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.15 ft (12.85 m) below land-surface datum, Oct. 28, 1960; lowest, 66.49 ft (20.27 m) below land-surface datum, May 15, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.17		---	49.49	50.76	52.82	54.91	55.82	55.49	54.36	53.50	53.12
10	50.93		---	49.98	52.07	53.51	54.65	55.59	55.16	54.31	53.67	53.34
15	50.76		---	50.15	51.86	53.79	55.10	55.56	55.14	53.69	54.05	53.65
20	---		---	50.30	52.34	54.02	55.50	55.84	55.02	54.07	53.78	52.93
25	---		50.07	50.63	52.73	54.33	55.62	55.36	54.58	53.93	53.84	53.14
EOM	---		49.80	51.01	52.83	54.81	55.42	55.50	54.49	54.04	53.21	53.39

WTR YEAR 1978 HWL RECORDED 49.49 JAN 5, 1978 LWL 56.02 APR 23, 1978

SOUTH-CENTRAL ALASKA

MATANUSKA-SUSITNA BOROUGH

613417149065401. Local number, SA01700209CCCB1009 20004.

LOCATION.--Lat 61°34'20", long 149°06'50", Hydrologic Unit 19050002, Springer Road, 2 mi (3 km) south of Palmer.
Owner: Glenn Woods.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 83 ft (25.3 m), cased to 82 ft (25.0 m), slotted at bottom.

DATUM.--Altitude of land-surface datum is 170 ft (52 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--July 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.58 ft (21.21 m) below land-surface datum, July 29, 1964; lowest measured, 77.36 ft (23.58 m) below land-surface datum, Mar. 26, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	72.15	DEC 15	72.51	FEB 22	72.80	APR 21	72.85	JUN 22	72.55	AUG 25	71.81
NOV 23	72.58	JAN 25	72.64	MAR 26	72.91	MAY 22	72.90	JUL 25	72.05	SEP 22	72.13

613630149084302. Local number, SA01800232BCCB2002 20002.

LOCATION.--Lat 61°36'30", long 149°08'43", Hydrologic Unit 19050002, Scott Road, near Palmer.
Owner: City of Palmer.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well. Diameter 8 in (0.20 m), depth 159 ft (48.5 m), screened 139 to 159 ft (42.4 to 48.5 m).

DATUM.--Altitude of land-surface datum is 390 ft (119 m). Measuring point: Top of 1.5 in (.04 m) diameter vertical pipe in concrete well foundation 17.25 ft (5.26 m) below land-surface datum.

REMARKS.--Water-level fluctuations occasionally caused by nearby pumping.

PERIOD OF RECORD.--June 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.77 ft (13.65 m) below land-surface datum, Apr. 27, 1966; lowest measured, 58.5 ft (17.8 m) below land-surface datum, Sept. 12, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	47.93	DEC 15	48.00	FEB 22	48.15	APR 21	48.24	JUN 22	48.07	AUG 25	47.97
NOV 23	48.00	JAN 25	48.07	MAR 26	48.29	MAY 22	48.07	JUL 25	48.02	SEP 22	47.93

621923150063501. Local number, SB02600524DCDC1003 20006.

LOCATION.--Lat 62°19'23", long 150°06'35", Hydrologic Unit 19050002, north end of airstrip, Talkeetna.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered test water-table well, diameter 2 in (0.05 m), depth 47 ft (14.3 m), sand point screen 44 to 47 ft (13.4 to 14.3 m).

DATUM.--Altitude of land-surface datum is 340 ft (104 m). Measuring point: Top of pipe 2.60 ft (0.79 m) above land-surface datum.

REMARKS.--Water levels closely reflect local streamflow conditions.

PERIOD OF RECORD.--September 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.53 ft (1.08 m) below land-surface datum, Aug. 12, 1971; lowest measured, 9.83 ft (3.00 m) below land-surface datum, Apr. 5, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 22	9.53	JUN 27	6.85	SEP 22	8.69
MAY 5	9.17	AUG 8	6.67		

YUKON ALASKA

FORT GREELY

635947145435101. Local number, FD01101011BDAA1003 50007.
LOCATION.--Lat 63°59'47", long 145°43'51", Hydrologic Unit 19030004, at Fort Greely about 1,500 ft (460 m) west of West Third Street and East Post Road intersection. Owner: U.S. Army.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), original depth 230 ft (70 m), top of sediment in well about 217 ft (66 m), casing information not available.
DATUM.--Altitude of land-surface datum is 1,300 ft (400 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
REMARKS.--Water-level recorder installed Nov. 4, 1977. Water level reflects changes in the Delta River 1.8 mi (1.15 km) to the west. Water levels appear to fluctuate with changes in barometric pressure.
PERIOD OF RECORD.--November 1965 to September 1975, August 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 185.2 ft (56.4 m), Nov. 4, 1977; dry at 216.7 ft (66.0 m) at various times.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5					197.3	200.2	202.9	204.8	204.9	201.2		
10					198.0	200.9	203.1	204.8	204.7	200.1		
15					198.5	201.2	203.5	204.9	204.4	199.0		
20				196.0	199.0	201.6	203.9	205.2	203.7	--		
25				196.7	199.3	201.9	204.2	205.1	202.8	--		
EOM				197.2	199.8	202.6	204.5	205.0	202.1	--		

WTR YEAR 1978 HWL MEASURED 185.2 NOV 4, 1977 LWL RECORDED 205.3 MAY 29, 1978.

FAIRBANKS NORTH STAR BOROUGH

643916147043501. Local number, FD00300314ADCC1001 50004.
LOCATION.--Lat 64°39'11", long 147°04'35", Hydrologic Unit 19030004, building 4355, Eielson Air Force Base. Owner: U.S. Air Force.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 101 ft (30.8 m), casing information not available.
DATUM.--Altitude of land-surface datum is 540 ft (165 m). Measuring point: Top of metal plate 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--August 1965 to July 1975, April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.87 ft (2.09 m) below land-surface datum, July 27, 1967; lowest, 9.90 ft (3.02 m) below land-surface datum, Nov. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.82	9.32	9.04	8.68	8.63	8.59	8.58	8.51	8.98	9.26	9.32	9.42
10	8.92	9.33	8.94	8.65	8.65	8.60	8.57	8.52	9.05	9.29	9.25	9.34
15	9.03	9.29	8.88	8.68	8.65	8.57	8.45	8.54	9.12	9.22	9.22	9.44
20	9.10	9.20	8.78	8.70	8.63	8.56	8.47	8.60	9.13	9.22	9.31	9.50
25	9.18	9.16	8.67	8.70	8.62	8.54	8.48	8.73	9.17	9.26	9.22	9.49
EOM	9.26	9.13	8.66	8.67	8.62	8.57	8.50	8.91	9.21	9.30	9.35	9.51

WTR YEAR 1978 HWL 8.45 APR 14-15, 1978 LWL 9.53 SEP 24, 1978

YUKON ALASKA

FAIRBANKS NORTH-STAR BOROUGH--Continued

644400147151O1. Local number, FD00200224ABBB1 51659.

LOCATION.--Lat 64°44'00", long 147°15'15", Hydrologic Unit 19030004, 50 ft (15 m) from southeast corner, junction of Laurence Road and Nelson Road near North Pole. Owner: U.S. Army Corps of Engineers.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 30 ft (9.14 m), cased to 30 ft (9.14 m).

DATUM.--Land-surface datum is 503.5 ft (153.5 m) National Geodetic Vertical Datum. Measuring point: top of casing 2.97 ft (0.91 m) above land-surface datum.

REMARKS.--U.S. Army Corps of Engineers named well P-251. Water levels affected by dewatering at Richardson Highway diversion bridge May through June 1977.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.29 ft (3.44 m) below land-surface datum, Aug. 18, 1976; lowest 13.65 ft (4.16 m) below land-surface datum, Apr. 14, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, JUNE TO SEPTEMBER 1976
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									11.80	11.58	11.39	11.86
10									11.69	11.59	11.33	12.01
15									11.62	11.58	11.30	12.17
20									11.58	11.53	11.42	12.24
25									11.57	11.52	11.77	12.49
EOM									11.58	11.43	12.08	12.81

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.99	13.06	12.64	12.48	12.23	11.74	11.52	11.49	12.40	11.47	11.57	11.91
10	13.26	12.95	12.63	12.48	12.07	11.68	11.52	11.49	12.36	11.47	11.58	11.93
15	13.45	12.84	12.61	12.48	12.02	11.64	11.52	11.67	12.17	11.48	11.60	11.90
20	13.45	12.73	12.59	12.43	11.93	11.60	11.52	12.02	11.87	11.51	11.67	11.90
25	13.36	12.68	12.56	12.38	11.83	11.57	11.52	12.17	11.67	11.51	11.70	11.90
EOM	13.21	12.65	12.51	12.33	11.78	11.53	11.52	12.38	11.49	11.51	11.77	11.90

WTR YEAR 1977 HWL 11.49 MAY 2-11, 1977 LWL 13.45 OCT 15-22, 1976

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.90	12.16	12.17	12.20	12.33	12.42	13.04	12.60	12.46	12.93	12.69	12.26
10	11.90	12.17	12.17	12.20	12.33	12.42	13.47	12.54	12.46	12.97	12.59	12.30
15	11.91	12.17	12.17	12.34	12.40	12.42	13.63	12.49	12.51	13.14	12.38	12.34
20	11.99	12.17	12.17	12.33	12.42	12.44	13.40	12.44	12.74	13.18	12.31	12.41
25	12.02	12.17	12.18	12.33	12.42	12.44	12.94	12.44	12.89	13.07	12.25	12.50
EOM	12.16	12.17	12.20	12.33	12.42	12.65	12.70	12.45	12.94	12.88	12.24	12.59

WTR YEAR 1978 HWL 11.90 OCT 1-12, 1977 LWL 13.65 APR 14, 1978

YUKON ALASKA

FAIRBANKS NORTH-STAR BOROUGH--Continued

644528147131201. Local number, FD00200307ADBD1 51660.
LOCATION.--Lat 64°45'28", long 147°13'12"; Hydrologic Unit 19030004, 2 mi (3 km) northeast of intersection of Laurence Road and Nelson Road, near North Pole. Owner: U.S. Army Corps of Engineers.
AQUIFER.--Sand and gravel of Quarternary age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 31 ft (9.45 m), cased to 31 ft (9.45 m).
DATUM.--Land-surface datum is 494.2 ft (150.6 m) National Geodetic Vertical Datum. Measuring point: top of casing 2.91 ft (0.887 m) above land-surface datum.
REMARKS.--U.S. Army Corps of Engineers named well P-252.
PERIOD OF RECORD.--June 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest measured water level, 9.83 ft (3.00 m) below land-surface datum, June 19, 1976; lowest, 13.04 ft (3.97 m) below land-surface datum, Oct. 1, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, JUNE TO JULY 1976
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	11.12		
10									---	---		
15									---	---		
20									10.02	---		
25									10.38	---		
EOM									10.72	---		

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.84		11.60	11.27	---	10.92	10.65		10.27	9.60		10.25
10	12.69		11.52	11.27	11.09	10.88	10.65		10.29	9.61		---
15	12.55		11.50	11.24	11.08	10.83	10.65		---	9.69		---
20	12.40		11.47	11.22	11.05	10.80	10.65		---	9.79		10.31
25	12.27		---	11.21	11.01	10.74	10.65		---	9.85		10.25
EOM	12.13		---	11.20	10.99	10.71	10.65		---	9.91		10.08

WTR YEAR 1977 HWL 9.59 JUL 3 & 4, 1977 LWL 13.04 OCT 1, 1976

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.95	9.93	9.98	10.19	10.35	10.52	10.60	10.81	10.68	10.91	11.11	11.32
10	9.89	9.95	10.01	10.20	10.43	10.54	10.64	10.71	10.63	10.96	11.05	11.41
15	9.87	9.92	10.04	10.23	10.45	10.56	10.65	10.64	10.88	11.01	11.03	11.53
20	9.84	9.96	10.08	10.27	10.49	10.59	10.71	10.61	10.93	11.02	11.02	11.69
25	9.85	9.97	10.14	10.34	10.51	10.60	10.81	10.59	10.94	11.03	11.09	11.82
EOM	9.97	9.99	10.20	10.41	10.54	10.63	10.87	10.64	10.91	11.09	11.18	11.97

WTR YEAR 1978 HWL 9.84 OCT 20-23, 1977 LWL 11.97 SEP 30, 1978

644944147402501. Local number, FC00100113BCCC1022 50006.
LOCATION.--Lat 64°49'44", long 147°40'25", Hydrologic Unit 19030004, at former building site 4005, Fort Wainwright. Owner: U.S. Army.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 118 ft (36.0 m), cased to 100 ft (30.5 m).
DATUM.--Altitude of land-surface datum is 440 ft (134 m). Measuring point: Top of casing 1.50 ft above land-surface datum.
REMARKS.--Water level reflects seasonal changes in the Chena River 0.4 mi (0.6 km) to the north and the Tanana River 2.5 mi (4.0 km) to the south.
PERIOD OF RECORD.--August 1966 to June 1970, March 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.67 ft (1.12 m) above land-surface datum, Aug. 15, 1967; lowest water level measured, 16.60 ft (5.06 m) below land-surface datum, Mar. 20, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.97	13.96	14.13	14.48	14.64	14.89	15.09	14.29	14.49	14.38	14.55	14.03
10	13.04	14.01	14.17	14.46	14.69	14.93	15.12	14.20	14.51	14.43	14.57	14.07
15	13.34	14.02	14.21	14.49	14.72	14.96	15.15	14.15	14.54	14.52	14.57	14.11
20	13.48	14.04	14.26	14.51	14.77	14.99	15.18	14.16	14.56	14.48	14.51	14.24
25	13.74	14.07	14.30	14.53	14.81	15.02	14.80	14.18	14.58	14.50	14.14	14.36
EOM	13.84	14.10	14.37	14.60	14.85	15.06	14.42	14.35	14.45	14.52	14.02	14.42

WTR YEAR 1978 HWL 12.96 OCT 2 & 3, 1977 LWL 15.18 APR 20 & 21, 1978

FAIRBANKS NORTH-STAR BOROUGH--Continued

645429147383901. Local number, FB00100113DDDC1003 50172.
LOCATION.--Lat 64°54'29", long 147°38'39", Hydrologic Unit 19030004, Lot 5, Block A, McGrath Estates Subdivision. Owner: McGrath Estates Incorporated.
AQUIFER.--Alluvium of Quaternary age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 4 in (0.10 m), depth 124.5 (38 m), casing information not available.
DATUM.--Altitude of land-surface datum is 710 ft (216 m). Measuring point: Top of casing 8.00 ft (2.4 m) above land-surface datum from 1949 to 1956, casing 4.25 ft (1.3 m) above land-surface datum from 1977 to current year.
REMARKS.--Approximately 8.5 ft (2.6 m) of oil in casing. Early water levels in WSP 1760.
PERIOD OF RECORD.--December 1949 to June 1956, February 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing over top of casing June 9-11, 1950; lowest measured, 1.89 ft (0.58 m) below land-surface datum, Apr. 24, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, FEBRUARY TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 25	1.62	MAR 23	1.67	APR 28	1.68	JUN 28	0.87	AUG 2	0.82	SEP 15	0.88
MAR 5	1.57	APR 4	1.76	MAY 16	1.55	JUL 11	0.83	AUG 22	0.89	SEP 26	0.70
MAR 14	1.48	APR 13	1.76	JUN 3	1.37						

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	0.40	JAN 11	1.44	APR 24	1.89	SEP 18	1.77
NOV 22	0.85	FEB 14	1.70	MAY 26	1.59		

645442147461601. Local number, FB00100117DDAD1001 50176.
LOCATION.--Lat 64°54'38", long 147°46'45"; Hydrologic Unit 19030004, 1.4 mi (2.3 km) northwest of intersection of Farmers Loop Road and Grenac Road, near Fairbanks. Owner: U.S. Geological Survey.
AQUIFER.--Birch Creek schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), depth 565 ft (172.2 m), cased to 370 ft (112.8 m).
DATUM.--Land-surface datum is 1,282.92 ft (391.015 m) National Geodetic Vertical Datum (datum established by Corps of Engineers in 1958). Measuring point: Top of casing 1.98 ft (0.60 m) above land-surface datum.
REMARKS.--U.S. Army named well B-61.
PERIOD OF RECORD.--May 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 809.4 ft (246.8 m) (revised) above mean sea level, May 28, 1975; lowest measured, 795.66 ft (242.51 m) above mean sea level, Sept. 12, 1978.

WATER LEVEL, IN FEET NGVD, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 22	798.69	FEB 13	797.98	APR 24	797.15	JUL 17	796.29
JAN 11	798.16	MAR 1	797.64	MAY 26	796.84	SEP 12	795.66

MCKINLEY PARK

634355148550501. Local number, FC01400704BDAB1002 50002.
LOCATION.--Lat 63°43'55", long 148°55'05", Hydrologic Unit 19030004, near McKinley Park Hotel. Owner: U.S. National Park Service.
AQUIFER.--Fractured schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 307 ft (93.6 m) cased to 304 ft (92.7 m), perforated 150 to 199.5 ft (45.7 to 60.8 m).
DATUM.--Altitude of land-surface datum is 1,750 ft (533 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.
PERIOD OF RECORD.--1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.26 ft (27.21 m) below land-surface datum, Oct. 4, 1969; lowest measured, 100.60 ft (30.66 m) below land-surface datum, June 22, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 17	99.28	AUG 6	95.26
JUL 9	94.23	SEP 22	97.66

YUKON ALASKA

MCKINLEY PARK--Continued

634359148545401. Local number, FC01400704ABCC1001 50001.
LOCATION.--Lat 63°43'59", long 148°54'54", Hydrologic Unit 19030004, near McKinley Park Hotel.
Owner: U.S. National Park Service.
AQUIFER.--Fractured schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled unused water-table well. Diameter 8 in (0.20 m), depth 253 ft (77.1 m) cased to 204 ft (62.2 m).
DATUM.--Altitude of land-surface datum is 1,750 ft (533 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.
REMARKS.--Water level at times affected by nearby pumping.
PERIOD OF RECORD.--1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.81 ft (28.29 m) below land-surface datum, July 2, 1968; lowest measured, 109.42 ft (33.35 m) below land-surface datum, April 10, 1966.
CORRECTION.--Levels reported in last year's report were erroneously stated as "above mean sea level". Figures were actually feet below land-surface datum.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 17	100.46	AUG 6	98.06
JUL 9	97.61	SEP 22	95.99

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTHEAST ALASKA

KETCHIKAN AREA WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
55 24 11	130 29 13	01	CD07409835CCCD1002 85427	78-08-24	0930	1/80020	3/1	5/4	--	1639
				78-08-24	0931	2/9815	--	--	--	--
55 24 16	130 28 45	01	CD07409835CDDB1001 85426	78-08-23	1400	80020	4/32	6/10	158.00	1816
				78-08-23	1401	9815	--	--	--	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
55 24 11	130 29 13	01	78-08-24	--	1639	E15	1140	7.7	5.0	0	690	630
			78-08-24	--	--	--	--	--	--	--	--	--
55 24 16	130 28 45	01	78-08-23	170	1816	--	185	6.0	3.0	13	33	5
			78-08-23	--	--	--	--	--	--	--	--	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
55 24 11	130 29 13	01	78-08-24	270	2.7	6.5	1.2	66	0	540	.6	2.0
			78-08-24	--	--	--	--	--	--	--	--	--
55 24 16	130 28 45	01	78-08-23	12	.7	1.9	.4	34	0	12	.6	.7
			78-08-23	--	--	--	--	--	--	--	--	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)
55 24 11	130 29 13	01	78-08-24	21	937	877	.00	.00	--	--	--	--
			78-08-24	--	--	--	--	--	ND	ND	<5	ND
55 24 16	130 28 45	01	78-08-23	12	70	58	.00	.01	--	--	--	--
			78-08-23	--	--	--	--	--	ND	<1	<5	77

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)
55 24 11	130 29 13	01	78-08-24	--	--	170	--	--	--
			78-08-24	400	ND	--	210	ND	<10
55 24 16	130 28 45	01	78-08-23	--	--	150	--	--	--
			78-08-23	400	<5	--	260	<10	550

1/ U.S. GEOLOGICAL SURVEY
2/ ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
3/ WELL HEAD
4/ FOERST SAMPLER
5/ FLOWING
6/ OPEN HOLE
E ESTIMATED
ND MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED

BEST DOCUMENT AVAILABLE

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA

KENAI AREA WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)
60 34 00	151 09 15	01	SB00601135DBBD2001 10871	77-10-26	1030	1/1	2/1	5/4	--	250
60 40 31	151 21 13	01	SB00701227AABA1005 10613	77-10-20	0930	1	1	6/8	66	58
60 40 41	151 23 13	02	SB00701221DDBC2008 11236	77-12-08	1100	1	1	8	--	339
60 40 46	151 20 26	01	SB00701223CACC1012 11109	77-10-18	0910	1	3/30	8	--	54
60 40 58	151 17 59	01	SB00701224DBAB1003 11178	77-10-18	1000	1	30	8	--	41
60 41 02	151 22 43	02	SB00701221ADDD2009 11074	77-12-08	1330	1	1	8	--	101
60 41 14	151 22 00	03	SB00701222BDAB3008 11233	77-10-25	1530	1	4/31	7/6	--	328
				78-02-10	0900	1	31	8/1	--	--
				78-04-20	0832	1	31	1	--	328
60 42 02	151 18 56	01	SB00701213BCBD1004 11162	77-10-20	1025	1	30	8	--	44
60 42 28	151 20 37	01	SB00701211CCAB1008 11122	77-10-20	1325	1	30	8	97	91
60 42 29	151 14 06	01	SB00701108DDAB1004 10700	77-10-20	1220	1	30	8	--	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
60 34 00	151 09 15	01	77-10-26	287	287	252	>2880	287	E10	220	7.8	4.0
60 40 31	151 21 13	01	77-10-20	67	66	61	15	67	E20	130	6.0	3.5
60 40 41	151 23 13	02	77-12-08	371	371	340	E43000	372	E300	700	8.0	5.0
60 40 46	151 20 26	01	77-10-18	55	--	55	30	55	2.0	100	6.4	4.0
60 40 58	151 17 59	01	77-10-18	55	55	52	30	55	E2.0	60	6.0	5.0
60 41 02	151 22 43	02	77-12-08	151	151	101	E250000	160	E600	200	7.4	4.5
60 41 14	151 22 00	03	77-10-25	332	332	332	30	332	E75	250	7.2	4.0
			78-02-10	332	332	332	2880	332	60	250	7.9	3.0
			78-04-20	332	332	332	1280	332	66	250	--	3.5
60 42 02	151 18 56	01	77-10-20	56	56	56	20	56	3.0	95	5.8	4.0
60 42 28	151 20 37	01	77-10-20	97	97	92	27	97	2.0	90	6.3	4.0
60 42 29	151 14 06	01	77-10-20	16	--	--	30	16	E2.0	100	5.9	5.5

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
60 34 00	151 09 15	01	77-10-26	20	39	0	5.7	5.9	34	4.6	120	0
60 40 31	151 21 13	01	77-10-20	35	50	0	12	4.9	5.8	1.8	78	0
60 40 41	151 23 13	02	77-12-08	90	54	0	9.2	7.5	140	9.5	310	0
60 40 46	151 20 26	01	77-10-18	27	32	0	8.5	2.7	4.4	1.5	45	0
60 40 58	151 17 59	01	77-10-18	5	19	0	6.1	1.0	5.0	1.0	27	0
60 41 02	151 22 43	02	77-12-08	4	93	0	28	5.7	5.5	3.1	114	0
60 41 14	151 22 00	03	77-10-25	25	31	0	5.9	3.9	39	5.9	135	0
			78-02-10	10	32	0	5.7	4.2	44	6.1	132	0
			78-04-20	--	--	--	--	--	--	--	--	--
60 42 02	151 18 56	01	77-10-20	2	34	2	10	2.1	5.2	1.4	39	0
60 42 28	151 20 37	01	77-10-20	10	29	0	8.0	2.3	4.5	1.7	38	0
60 42 29	151 14 06	01	77-10-20	1	41	0	12	2.6	4.1	1.4	50	0

1/ RAW
2/ WELL HEAD
3/ PRESSURE TANK
4/ DISCHARGE PIPE
5/ FLOWING
6/ PUMPING
7/ FLOWING ON GAS LIFT
8/ TESTING
E ESTIMATED

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
60 34 00	151 09 15	01	77-10-26	3.7	8.6	.3	44	167	168	.00	.42	21
60 40 31	151 21 13	01	77-10-20	5.5	5.2	.1	29	92	106	.00	.00	--
60 40 41	151 23 13	02	77-12-08	22	65	.8	25	--	440	.28	2.0	19
60 40 46	151 20 26	01	77-10-18	7.2	5.1	.1	30	78	84	.00	.01	--
60 40 58	151 17 59	01	77-10-18	5.8	3.3	.1	26	58	63	.26	.01	--
60 41 02	151 22 43	02	77-12-08	4.2	8.1	.2	33	--	145	.04	.12	11
60 41 14	151 22 00	03	77-10-25	2.5	11	.5	21	155	158	.02	.63	23
			78-02-10	5.9	13	.5	26	--	174	.01	.85	22
			78-04-20	--	--	--	--	--	--	--	--	--
60 42 02	151 18 56	01	77-10-20	5.2	5.4	.1	27	73	76	.09	.01	--
60 42 28	151 20 37	01	77-10-20	5.2	5.0	.1	31	70	77	.00	.00	--
60 42 29	151 14 06	01	77-10-20	8.6	3.5	.1	23	72	81	.21	.01	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
60 34 00	151 09 15	01	77-10-26	--	110	--	--	--	260	--	50
60 40 31	151 21 13	01	77-10-20	--	--	--	--	--	3500	--	110
60 40 41	151 23 13	02	77-12-08	0	450	0	0	2	140	1	80
60 40 46	151 20 26	01	77-10-18	--	--	--	--	--	2100	--	120
60 40 58	151 17 59	01	77-10-18	--	--	--	--	--	120	--	120
60 41 02	151 22 43	02	77-12-08	0	20	0	0	0	390	1	250
60 41 14	151 22 00	03	77-10-25	--	170	--	--	--	130	--	40
			78-02-10	300	160	0	0	0	40	3	50
			78-04-20	--	--	--	--	--	--	--	--
60 42 02	151 18 56	01	77-10-20	--	--	--	--	--	30	--	20
60 42 28	151 20 37	01	77-10-20	--	--	--	--	--	600	--	30
60 42 29	151 14 06	01	77-10-20	--	--	--	--	--	30	--	4

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
60 34 00	151 09 15	01	77-10-26	--	--	--	--
60 40 31	151 21 13	01	77-10-20	--	--	--	--
60 40 41	151 23 13	02	77-12-08	0	0	20	15
60 40 46	151 20 26	01	77-10-18	--	--	--	--
60 40 58	151 17 59	01	77-10-18	--	--	--	--
60 41 02	151 22 43	02	77-12-08	0	0	20	.9
60 41 14	151 22 00	03	77-10-25	--	--	--	--
			78-02-10	0	0	10	--
			78-04-20	--	--	--	1.6
60 42 02	151 18 56	01	77-10-20	--	--	--	--
60 42 28	151 20 37	01	77-10-20	--	--	--	--
60 42 29	151 14 06	01	77-10-20	--	--	--	--

BEST DOCUMENT AVAILABLE

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA--Continued

ANCHORAGE (INTERNATIONAL AIRPORT ROAD) SANITARY LANDFILL WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH OF WELL, TOTAL (FEET)
61 10 02	149 55 38	01	SB01300436CCCC1038 02139	78-04-11	1206	1/1	2/26	4/1	5.0	17
				78-09-26	1130	1	26	1	5.5	17
61 10 05	149 54 48	01	SB01300436CDDB1032 02131	78-04-11	1025	1	26	1	4.3	18
				78-09-26	1250	1	26	1	3.0	18
61 10 13	149 55 08	01	SB01300436CCAA1036 02135	78-04-13	1418	1	3/31	1	24	46
				78-09-26	1450	1	31	1	24	46
61 10 17	149 55 52	01	SB01300435DACC1020 02137	78-04-11	1342	1	26	1	6.0	23
				78-09-26	1010	1	26	1	10	23

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)
61 10 02	149 55 38	01	78-04-11	17	13	30	17	1.6	455	6.4	2.0	250
			78-09-26	17	13	30	17	1.0	550	6.6	3.5	290
61 10 05	149 54 48	01	78-04-11	18	13	25	18	1.2	360	6.5	1.0	180
			78-09-26	18	13	25	18	1.0	345	6.2	2.0	180
61 10 13	149 55 08	01	78-04-13	46	38	30	46	5.0	2950	6.3	2.0	1100
			78-09-26	46	38	30	46	8.0	3000	6.1	3.0	1300
61 10 17	149 55 52	01	78-04-11	23	15	30	23	1.2	78	5.4	2.0	28
			78-09-26	23	15	30	23	1.0	73	5.2	3.0	28

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
61 10 02	149 55 38	01	78-04-11	0	62	22	4.5	1.2	310	0	7.1	4.4
			78-09-26	53	77	24	5.4	1.2	290	0	64	7.8
61 10 05	149 54 48	01	78-04-11	0	56	9.1	3.2	.7	222	0	16	6.0
			78-09-26	0	56	9.1	3.7	.7	230	0	12	8.3
61 10 13	149 55 08	01	78-04-13	0	360	60	120	13	1660	0	5.2	140
			78-09-26	120	420	61	100	15	1440	0	9.0	180
61 10 17	149 55 52	01	78-04-11	15	8.9	1.4	1.5	.4	16	0	17	2.0
			78-09-26	15	8.1	1.9	2.1	.4	16	0	15	5.8

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ARSENIC DIS-SOLVED (UG/L AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
61 10 02	149 55 38	01	78-04-11	271	--	3	6600	0	10	--
			78-09-26	369	.01	--	8300	720	--	13
61 10 05	149 54 48	01	78-04-11	208	--	2	9800	740	2.1	--
			78-09-26	227	.00	--	13000	730	--	3.6
61 10 13	149 55 08	01	78-04-13	2350	--	3	230000	13000	--	970
			78-09-26	3040	.04	--	310000	13000	--	817
61 10 17	149 55 52	01	78-04-11	60	--	0	890	50	1.4	--
			78-09-26	67	.40	--	930	70	--	1.0

1/ RAW
2/ PUMP
3/ DISCHARGE PIPE
4/ TESTING

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA--Continued

ANCHORAGE (MERRILL FIELD) SANITARY LANDFILL WELLS

LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT- MENT	SAMPLE SOURCE	SAM- PLING CONDI- TION	DEPTH TO BOT- TOM OF WATER- BEARING ZONE (FT)	DEPTH TO TOP OF WATER- BEARING ZONE (FT)
61 12 19	149 50 35	01	SB01300320ADBC1030 02369	78-04-13	0915	1/1	2/31	4/1	--	--
61 12 23	149 50 39	01	SB01300320ABDD1033 02398	78-04-13	1055	1	31	1	--	89
				78-09-27	1000	1	31	1	--	89
61 12 23	149 50 39	02	SB01300320ABDD2033 02399	78-04-13	1151	1	3/26	1	35	6.0
				78-09-27	1505	1	26	1	35	6.9
61 12 43	149 50 07	01	SB01300316CCBC1006 02371	78-04-12	1238	1	31	1	--	91
				78-09-27	1310	1	31	1	--	91
61 12 43	149 50 07	02	SB01300316CCBC2006 02372	78-04-12	1057	1	31	1	70	68
				78-09-27	1135	1	31	1	70	68
61 12 43	149 50 07	03	SB01300316CCBC3006 02373	78-04-12	1335	1	31	1	23	8.2
				78-09-27	1405	1	31	1	23	8.5
61 12 56	149 49 23	01	SB01300316CACC1007 02453	78-04-12	0840	1	26	1	--	9.4

LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN- TANEOUS (GPM)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
61 12 19	149 50 35	01	78-04-13	102	102	102	48	102	12	370	8.0	3.5
61 12 23	149 50 39	01	78-04-13	91	91	91	30	91	12	305	8.0	3.5
			78-09-27	91	91	91	30	91	10	295	7.8	3.5
61 12 23	149 50 39	02	78-04-13	35	35	32	E30	45	E1.0	350	8.0	4.0
			78-09-27	35	35	32	--	45	1.0	420	8.0	5.5
61 12 43	149 50 07	01	78-04-12	95	95	95	58	95	7.0	415	7.0	3.0
			78-09-27	95	95	95	30	95	7.0	275	8.2	3.5
61 12 43	149 50 07	02	78-04-12	70	70	70	33	70	2.0	560	6.9	3.0
			78-09-27	70	70	70	35	70	3.0	275	7.6	4.0
61 12 43	149 50 07	03	78-04-12	17	17	13	20	19	5.5	4000	6.6	6.5
			78-09-27	17	17	13	25	19	5.0	4370	6.5	7.5
61 12 56	149 49 23	01	78-04-12	14	14	14	30	15	1.2	360	5.8	2.5

LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	DATE OF SAMPLE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
61 12 19	149 50 35	01	78-04-13	180	42	40	19	13	2.0	166	0	42
61 12 23	149 50 39	01	78-04-13	130	8	30	14	17	2.0	152	0	22
			78-09-27	130	0	29	13	16	1.9	160	0	18
61 12 23	149 50 39	02	78-04-13	140	68	33	15	9.0	1.6	88	0	2.8
			78-09-27	180	60	47	16	10	1.8	150	0	7.1
61 12 43	149 50 07	01	78-04-12	140	0	35	13	35	3.8	250	0	6.2
			78-09-27	89	0	22	8.3	26	2.5	180	0	6.1
61 12 43	149 50 07	02	78-04-12	170	0	41	16	41	4.6	302	0	5.6
			78-09-27	92	0	23	8.3	25	2.5	170	0	6.9
61 12 43	149 50 07	03	78-04-12	1500	0	400	120	370	38	2400	0	12
			78-09-27	1500	0	400	120	290	39	2520	0	15
61 12 56	149 49 23	01	78-04-12	160	74	41	13	12	1.2	100	0	45

1/ RAW
2/ DISCHARGE PIPE
3/ PUMP
4/ TESTING
E ESTIMATED

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA--Continued

ANCHORAGE (MERRILL FIELD) SANITARY LANDFILL WELLS--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ARSENIC DIS-SOLVED (UG/L AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
61 12 19	149 50 35	01	78-04-13	12	225	--	18	170	180	.8
61 12 23	149 50 39	01	78-04-13	8.8	210	--	24	110	90	3.1
			78-09-27	8.5	172	.01	25	70	90	1.8
61 12 23	149 50 39	02	78-04-13	64	234	--	0	260	100	1.7
			78-09-27	59	257	.01	11	610	190	4.3
61 12 43	149 50 07	01	78-04-12	20	334	--	18	4200	960	3.1
			78-09-27	5.6	156	.02	38	1800	380	1.4
61 12 43	149 50 07	02	78-04-12	26	275	--	28	10000	1600	4.5
			78-09-27	5.2	157	.01	38	1000	350	1.4
61 12 43	149 50 07	03	78-04-12	470	2480	--	45	68000	22000	100
			78-09-27	490	2380	.02	46	87000	21000	107
61 12 56	149 49 23	01	78-04-12	37	224	--	0	1400	160	1.3

ANCHORAGE CITY WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)
61 11 49	149 55 39	01	SB01300423DDDB1002 00280	78-09-28	1050	1/1	3/31	5/1	--	--
61 12 32	149 50 58	01	SB01300320ABBB1001 00163	78-04-20	1330	2/2	4/1	6/8	338	268
61 12 52	149 49 18	02	SB01300316CADD2001 01551	78-04-20	1315	1	1	8	299	173

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
61 11 49	149 55 39	01	78-09-28	283	283	278	90	283	10	225	8.0	2.5
61 12 32	149 50 58	01	78-04-20	350	351	296	270	452	1100	190	6.9	4.5
61 12 52	149 49 18	02	78-04-20	311	290	174	>3000	296	950	212	7.1	4.0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
61 11 49	149 55 39	01	78-09-28	120	0	31	9.7	5.4	1.1	146	0	4.0
61 12 32	149 50 58	01	78-04-20	--	--	--	--	--	--	105	0	--
61 12 52	149 49 18	02	78-04-20	--	--	--	--	--	--	125	0	--

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
61 11 49	149 55 39	01	78-09-28	2.2	.1	20	146	.02	140	80
61 12 32	149 50 58	01	78-04-20	--	--	--	--	--	--	--
61 12 52	149 49 18	02	78-04-20	--	--	--	--	--	--	--

1/ RAW
2/ TREATED
3/ DISCHARGE PIPE
4/ WELL HEAD
5/ TESTING
6/ PUMPING

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA--Continued

TYONEK AREA WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
61 06 47	151 15 30	01	SB01201120DBDD1001 21426	78-06-23	2100	1/1	2/31	3/1	206	206
				78-06-24	1200	1	31	1	206	206

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	DEPTH OF HOLE, TOTAL (FEET)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)
61 06 47	151 15 30	01	78-06-23	106	450	320	2.5	140	6.8	4.0	200	32
			78-06-24	106	40	320	1.0	85	6.1	--	45	27

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
61 06 47	151 15 30	01	78-06-23	0	6.4	3.8	15	1.5	77	0	2.9	.1
			78-06-24	0	6.0	3.0	6.4	1.2	50	0	6.6	1.4

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
61 06 47	151 15 30	01	78-06-23	.1	18	88	.04	.26	3	200	1	0
			78-06-24	.0	14	65	.00	.08	2	200	0	10

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
61 06 47	151 15 30	01	78-06-23	2	410	3	90	0	0	50
			78-06-24	4	960	3	100	0	0	110

1/ RAW
2/ DISCHARGE PIPE
3/ TESTING

BEST DOCUMENT AVAILABLE

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

YUKON ALASKA

FAIRBANKS WELLS

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SAMPLE SOURCE	SAM-PLING CONDI-TION	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT)
64 47 13	147 58 18	01	FC00100233BCAC1014 51832	78-07-12	0930	--	110.80	2/30	--	--
64 47 14	147 58 34	01	FC00100233BCBC2003 51771	78-06-07	1030	--	--	30	--	--
64 47 19	147 58 26	01	FC00100233BBCD1008 51772	78-06-07	1130	--	165.00	30	--	--
64 47 23	147 58 03	01	FC00100233BACB1011 51789	78-06-16	1330	--	238.50	30	--	--
				78-08-10	1500	--	--	30	--	--
64 47 25	147 58 29	01	FC00100233BBBD1013 51792	78-06-20	1000	--	267.80	30	--	--
64 47 28	147 57 51	01	FC00100233BAAB1007 51769	78-06-05	1400	--	325.70	30	--	--
64 47 28	147 58 00	01	FC00100233BABB2010 51774	78-06-07	1615	--	--	30	--	--
64 47 28	147 58 02	01	FC00100233BABB1009 51773	78-06-08	1030	--	--	30	--	--
64 47 30	147 57 38	01	FC00100233BAAA1012 51790	78-06-16	1415	--	248.30	30	--	--
64 47 30	147 57 45	01	FC00100233BAAB2006 51770	78-06-05	1600	--	308.80	30	--	--
				78-08-10	1515	--	--	30	--	--
64 47 32	147 58 48	01	FC00100229DDDC1013 51822	78-07-07	1100	--	259.00	30	--	--
64 47 36	148 00 27	01	FC00100229CCCA1019 51833	78-08-03	1400	--	177.10	30	--	--
64 47 38	147 58 40	01	FC00100229DDAD1014 51823	78-07-07	0930	--	174.30	30	--	--
64 47 39	147 57 32	01	FC00100228DCBC1005 51776	78-06-07	1630	--	--	30	--	--
64 47 39	147 57 48	01	FC00100228CDAC1004 51775	78-06-08	0945	--	165.10	30	--	--
64 47 39	147 58 10	01	FC00100228CCDC1006 51786	78-06-13	1000	--	116.40	30	--	--
64 47 44	147 58 49	01	FC00100229DADC1016 51827	78-08-03	1245	--	170.80	30	--	--
64 48 06	147 59 50	01	FC00100229BDAC1018 51831	78-07-11	1300	--	67.30	30	--	--
64 48 22	148 00 28	01	FC00100220CCCD1013 51885	78-07-28	0915	--	167.80	30	6/8	--
64 48 23	148 00 18	01	FC00100220CCDC1012 51856	78-07-18	1315	--	--	30	--	--
64 48 25	148 00 30	01	FC00100220CCCA1002 51403	78-06-27	1100	--	--	30	--	--
64 48 39	148 00 30	01	FC00100220CBCA1008 51799	78-06-27	1000	--	213.00	30	--	--
64 48 40	148 00 18	01	FC00100220CBDA1010 51848	78-07-13	1400	--	174.30	30	--	--
64 48 42	148 00 09	01	FC00100220CABC1009 51800	78-06-29	1030	--	176.40	30	--	--
64 49 16	147 53 14	01	FC00100214DCDC1006 51884	78-07-27	1645	--	6.20	3/8	--	--
64 49 20	147 53 59	01	FC00100214DDBC2008 51914	78-08-15	1030	--	7.45	30	--	--
64 49 22	147 52 59	01	FC00100214DDBC1005 51883	78-07-27	1530	--	6.70	30	--	--
64 49 26	147 52 35	01	FC00100214DDAA1007 51897	78-08-10	1030	--	--	30	--	--
64 50 25	147 54 12	01	FC00100211CBDB1003 51793	78-06-21	1100	--	--	30	--	--
64 50 29	147 54 08	01	FC00100211CBAA1002 51794	78-06-21	0945	--	210.50	30	--	--
64 50 29	147 54 29	01	FC00100211CBBB1004 51855	78-07-18	1045	--	168.70	30	--	--
64 51 29	147 58 21	01	FC00100204BCDB1021 51284	77-12-01	0930	1/1	--	30	--	150
				77-12-01	1000	--	--	30	--	150
				78-08-11	1045	--	--	30	--	150
				78-08-11	1050	--	--	30	--	150
				78-08-11	1055	--	--	30	--	150
64 53 08	147 20 28	01	FA00100228ADCD1003 51760	78-03-06	1630	--	--	--	--	--
64 53 13	147 47 43	01	FB00100129BDDA1035 51854	78-07-17	1300	--	--	4/33	7/15	--
				78-07-18	0815	--	--	33	15	--
				78-07-19	0900	--	--	33	15	--
				78-07-25	0930	--	--	33	15	--
64 54 24	147 48 28	01	FB00100120BBBD2026 51926	78-09-05	1400	--	--	5/1	8/1	--

1/ RAW
2/ PRESSURE TANK
3/ TANK
4/ BAILER
5/ WELL HEAD
6/ PUMPING
7/ BAILING
8/ TESTING

BEST DOCUMENT AVAILABLE

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

YUKON ALASKA--Continued

FAIRBANKS WELLS--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH OF HOLE, TOTAL (FEET)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
64 47 13	147 58 18	01	78-07-12	--	--	--	--	--	1000	7.3	7.0	--
64 47 14	147 58 34	01	78-06-07	--	270	270	240	270	1950	7.4	10.0	--
64 47 19	147 58 26	01	78-06-07	--	--	--	--	--	2000	6.9	9.0	--
64 47 23	147 58 03	01	78-06-16	--	420	420	395	420	1700	6.6	10.0	--
			78-08-10	--	420	420	395	420	--	--	--	--
64 47 25	147 58 29	01	78-06-20	--	--	--	--	--	1500	6.8	6.0	--
64 47 28	147 57 51	01	78-06-05	--	450	450	430	450	1625	6.8	8.0	--
64 47 28	147 58 00	01	78-06-07	--	450	450	--	450	1300	6.0	3.0	--
64 47 28	147 58 02	01	78-06-08	--	--	--	--	--	1648	6.7	8.0	--
64 47 30	147 57 38	01	78-06-16	--	--	--	--	--	1780	6.8	10.0	--
64 47 30	147 57 45	01	78-06-05	--	420	420	335	420	1750	6.8	6.0	--
			78-08-10	--	420	420	335	420	--	--	--	--
64 47 32	147 58 48	01	78-07-07	--	360	360	330	360	688	6.9	10.0	--
64 47 36	148 00 27	01	78-08-03	--	298	298	275	298	1400	7.1	10.0	--
64 47 38	147 58 40	01	78-07-07	--	250	250	--	250	850	6.8	8.0	--
64 47 39	147 57 32	01	78-06-07	--	280	280	238	280	1250	6.4	10.0	--
64 47 39	147 57 48	01	78-06-08	--	250	250	195	195	2250	6.4	6.0	--
64 47 39	147 58 10	01	78-06-13	--	205	205	177	205	1200	6.9	10.0	--
64 47 44	147 58 49	01	78-08-03	--	220	220	198	220	--	7.2	11.0	--
64 48 06	147 59 50	01	78-07-11	--	--	--	--	--	462	6.9	9.0	--
64 48 22	148 00 28	01	78-07-28	--	--	--	--	--	285	6.8	7.0	--
64 48 23	148 00 18	01	78-07-18	--	220	220	--	220	512	7.0	9.0	--
64 48 25	148 00 30	01	78-06-27	--	220	220	205	220	250	6.3	7.0	--
64 48 39	148 00 30	01	78-06-27	--	340	340	279	340	--	6.5	10.0	--
64 48 40	148 00 18	01	78-07-13	--	200	200	150	200	220	7.1	18.0	--
64 48 42	148 00 09	01	78-06-29	--	225	225	204	225	475	5.8	9.0	--
64 49 16	147 53 14	01	78-07-27	--	--	--	--	--	320	6.8	14.0	--
64 49 20	147 53 59	01	78-08-15	--	--	--	--	--	350	6.8	10.0	--
64 49 22	147 52 59	01	78-07-27	--	--	--	--	--	525	6.8	7.0	--
64 49 26	147 52 35	01	78-08-10	--	--	--	--	--	355	6.5	5.0	--
64 50 25	147 54 12	01	78-06-21	--	--	--	--	--	270	6.3	6.0	--
64 50 29	147 54 08	01	78-06-21	--	--	--	--	--	975	7.1	8.5	--
64 50 29	147 54 29	01	78-07-18	--	--	--	--	--	1400	6.9	10.0	--
64 51 29	147 58 21	01	77-12-01	140	170	150	--	170	1100	6.6	5.0	1
			77-12-01	140	170	150	--	170	1100	6.6	5.0	--
			78-08-11	140	170	150	--	170	1150	6.6	13.0	--
			78-08-11	140	170	150	--	170	1150	6.6	13.0	--
			78-08-11	140	170	150	--	170	1150	6.6	13.0	--
64 53 08	147 20 28	01	78-03-06	--	--	--	--	--	--	--	--	--
64 53 13	147 47 43	01	78-07-17	--	--	242	--	--	--	--	--	--
			78-07-18	--	--	263	--	--	--	--	--	--
			78-07-19	--	--	275	--	--	--	--	--	--
			78-07-25	--	--	305	--	--	--	--	--	--
64 54 24	147 48 28	01	78-09-05	--	275	275	235	275	210	7.5	5.0	0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
64 47 13	147 58 18	01	78-07-12	--	--	--	--	--	--	378	0	--
64 47 14	147 58 34	01	78-06-07	--	--	--	--	--	--	417	0	--
64 47 19	147 58 26	01	78-06-07	--	--	--	--	--	--	429	0	--
64 47 23	147 58 03	01	78-06-16	--	--	--	--	--	--	565	0	--
			78-08-10	--	--	--	--	--	--	--	--	--
64 47 25	147 58 29	01	78-06-20	--	--	--	--	--	--	536	0	--
64 47 28	147 57 51	01	78-06-05	--	--	--	--	--	--	616	0	--
64 47 28	147 58 00	01	78-06-07	--	--	--	--	--	--	572	0	--
64 47 28	147 58 02	01	78-06-08	--	--	--	--	--	--	648	0	--
64 47 30	147 57 38	01	78-06-16	--	--	--	--	--	--	718	0	--

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

YUKON ALASKA--Continued

FAIRBANKS WELLS--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
64 47 30	147 57 45	01	78-06-05	--	--	--	--	--	--	691	0	--
			78-08-10	--	--	--	--	--	--	--	--	--
64 47 32	147 58 48	01	78-07-07	--	--	--	--	--	--	433	0	--
64 47 36	148 00 27	01	78-08-03	--	--	--	--	--	--	332	0	--
64 47 38	147 58 40	01	78-07-07	--	--	--	--	--	--	524	0	--
64 47 39	147 57 32	01	78-06-07	--	--	--	--	--	--	536	0	--
64 47 39	147 57 48	01	78-06-08	--	--	--	--	--	--	684	0	--
64 47 39	147 58 10	01	78-06-13	--	--	--	--	--	--	650	0	--
64 47 44	147 58 49	01	78-08-03	--	--	--	--	--	--	--	--	--
64 48 06	147 59 50	01	78-07-11	--	--	--	--	--	--	243	0	--
64 48 22	148 00 28	01	78-07-28	--	--	--	--	--	--	150	0	--
64 48 23	148 00 18	01	78-07-18	--	--	--	--	--	--	202	0	--
64 48 25	148 00 30	01	78-06-27	--	--	--	--	--	--	121	0	--
64 48 39	148 00 30	01	78-06-27	--	--	--	--	--	--	410	0	--
64 48 40	148 00 18	01	78-07-13	--	--	--	--	--	--	141	0	--
64 48 42	148 00 09	01	78-06-24	--	--	--	--	--	--	178	0	--
64 49 16	147 53 14	01	78-07-27	--	--	--	--	--	--	195	0	--
64 49 20	147 53 59	01	78-08-15	--	--	--	--	--	--	--	--	--
64 49 22	147 52 59	01	78-07-27	--	--	--	--	--	--	228	0	--
64 49 26	147 52 35	01	78-08-10	--	--	--	--	--	--	217	0	--
64 50 25	147 54 12	01	78-06-21	--	--	--	--	--	--	68	0	--
64 50 29	147 54 08	01	78-06-21	--	--	--	--	--	--	291	0	--
64 50 29	147 54 29	01	78-07-18	--	--	--	--	--	--	340	0	--
64 51 29	147 58 21	01	77-12-01	650	77	170	55	15	4.5	780	0	79
			77-12-01	--	--	--	--	--	--	--	--	--
			78-08-11	--	--	--	--	--	--	--	--	--
			78-08-11	--	--	--	--	--	--	--	--	--
			78-08-11	--	--	--	--	--	--	--	--	--
64 53 08	147 20 28	01	78-03-06	--	--	--	--	--	--	--	--	--
64 53 13	147 47 43	01	78-07-17	--	--	--	--	--	--	--	--	--
			78-07-18	--	--	--	--	--	--	--	--	--
			78-07-19	--	--	--	--	--	--	--	--	--
			78-07-25	--	--	--	--	--	--	--	--	--
64 54 24	147 48 28	01	78-09-05	93	0	21	9.8	5.9	2.1	120	0	2.8

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
64 47 13	147 58 18	01	78-07-12	--	--	--	--	--	--	--	--	1
64 47 14	147 58 34	01	78-06-07	--	--	--	--	--	--	--	--	0
64 47 19	147 58 26	01	78-06-07	--	--	--	--	--	--	--	--	0
64 47 23	147 58 03	01	78-06-16	--	--	--	--	--	--	--	--	--
			78-08-10	--	--	--	--	--	--	--	--	1
64 47 25	147 58 29	01	78-06-20	--	--	--	--	--	--	--	--	2
64 47 28	147 57 51	01	78-06-05	--	--	--	--	--	--	--	--	0
64 47 28	147 58 00	01	78-06-07	--	--	--	--	--	--	--	--	1
64 47 28	147 58 02	01	78-06-08	--	--	--	--	--	--	--	--	1
64 47 30	147 57 38	01	78-06-16	--	--	--	--	--	--	--	--	2
64 47 30	147 57 45	01	78-06-05	--	--	--	--	--	--	--	--	1
			78-08-10	--	--	--	--	--	17	--	--	--
64 47 32	147 58 48	01	78-07-07	--	--	--	--	--	--	--	--	1
64 47 36	148 00 27	01	78-08-03	--	--	--	--	--	--	--	--	0
64 47 38	147 58 40	01	78-07-07	--	--	--	--	--	--	--	--	1
64 47 39	147 57 32	01	78-06-07	--	--	--	--	--	--	--	--	1
64 47 39	147 57 48	01	78-06-08	--	--	--	--	--	20	--	--	0
64 47 39	147 58 10	01	78-06-13	--	--	--	--	--	--	--	--	0
64 47 44	147 58 49	01	78-08-03	--	--	--	--	--	--	--	--	0
64 48 06	147 59 50	01	78-07-11	--	--	--	--	--	--	--	--	1

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

YUKON ALASKA--Continued

FAIRBANKS WELLS--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
64 48 22	148 00 28	01	78-07-28	--	--	--	--	--	--	--	--	2
64 48 23	148 00 18	01	78-07-18	--	--	--	--	--	--	--	--	1
64 48 25	148 00 30	01	78-06-27	--	--	--	--	--	.54	--	--	0
64 48 39	148 00 30	01	78-06-27	--	--	--	--	--	--	--	--	--
64 48 40	148 00 18	01	78-07-13	--	--	--	--	--	--	--	--	--
64 48 42	148 00 09	01	78-06-29	--	--	--	--	--	--	--	--	6
64 49 16	147 53 14	01	78-07-27	--	--	--	--	--	--	--	--	1
64 49 20	147 53 59	01	78-08-15	--	--	--	--	--	--	--	--	2
64 49 22	147 52 59	01	78-07-27	--	--	--	--	--	--	--	--	2
64 49 26	147 52 35	01	78-08-10	--	--	--	--	--	--	--	--	1
64 50 25	147 54 12	01	78-06-21	--	--	--	--	--	--	--	--	0
64 50 29	147 54 08	01	78-06-21	--	--	--	--	--	--	--	--	3
64 50 29	147 54 29	01	78-07-18	--	--	--	--	--	--	--	--	0
64 51 29	147 58 21	01	77-12-01	1.6	.1	16	697	702	--	3.1	.01	--
			77-12-01	--	--	--	--	--	--	--	--	66
			78-08-11	--	--	--	--	--	--	--	--	15
			78-08-11	--	--	--	--	--	--	--	--	14
			78-08-11	--	--	--	--	--	--	--	--	26
64 53 08	147 20 28	01	78-03-06	--	--	--	--	--	--	--	--	13
64 53 13	147 47 43	01	78-07-17	--	--	--	--	--	--	--	--	--
			78-07-18	--	--	--	--	--	--	--	--	--
			78-07-19	--	--	--	--	--	--	--	--	--
			78-07-25	--	--	--	--	--	--	--	--	--
64 54 24	147 48 28	01	78-09-05	.4	.2	9.0	118	116	--	1.0	.00	1

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
64 47 13	147 58 18	01	78-07-12	--	--	--	--
64 47 14	147 58 34	01	78-06-07	--	3000	--	--
64 47 19	147 58 26	01	78-06-07	--	--	--	--
64 47 23	147 58 03	01	78-06-16	--	5900	--	--
			78-08-10	--	--	--	--
64 47 25	147 58 29	01	78-06-20	--	--	--	--
64 47 28	147 57 51	01	78-06-05	--	6100	--	--
64 47 28	147 58 00	01	78-06-07	--	--	--	--
64 47 28	147 58 02	01	78-06-08	--	2800	--	--
64 47 30	147 57 38	01	78-06-14	--	--	--	--
64 47 30	147 57 45	01	78-06-05	--	--	--	--
			78-08-10	--	--	--	--
64 47 32	147 58 48	01	78-07-07	--	--	--	--
64 47 36	148 00 27	01	78-08-03	--	2100	--	--
64 47 38	147 58 40	01	78-07-07	--	--	--	--
64 47 39	147 57 32	01	78-06-07	--	--	--	--
64 47 39	147 57 48	01	78-06-08	--	--	--	--
64 47 39	147 58 10	01	78-06-13	--	--	--	--
64 47 44	147 58 49	01	78-08-03	--	--	--	--
64 48 06	147 59 50	01	78-07-11	--	--	--	--
64 48 22	148 00 28	01	78-07-26	--	--	--	--
64 48 23	148 00 18	01	78-07-18	--	--	--	--
64 48 25	148 00 30	01	78-06-27	--	--	--	--
64 48 39	148 00 30	01	78-06-27	--	6900	--	--
64 48 40	148 00 18	01	78-07-13	--	--	--	--
64 48 42	148 00 09	01	78-06-29	--	4600	--	--
64 49 16	147 53 14	01	78-07-27	--	5300	--	--
64 49 20	147 53 59	01	78-08-15	--	230	--	--
64 49 22	147 52 59	01	78-07-27	--	5700	--	--
64 49 26	147 52 35	01	78-08-10	--	6600	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA COLLECTED FROM WELLS DURING WATER YEAR 1978

YUKON ALASKA--Continued

FAIRBANKS WELLS--Continued

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
64 50 25	147 54 12	01	78-06-21	--	--	--	--
64 50 29	147 54 08	01	78-06-21	--	--	--	--
64 50 29	147 54 29	01	78-07-18	--	18000	--	--
64 51 29	147 58 21	01	77-12-01	--	--	1700	120
			77-12-01	--	--	--	--
			78-08-11	--	--	--	--
			78-08-11	--	--	--	--
			78-08-11	--	--	--	--
64 53 08	147 20 28	01	78-03-06	--	--	--	--
64 53 13	147 47 43	01	78-07-17	15	--	--	--
			78-07-18	15	--	--	--
			78-07-19	5	--	--	--
			78-07-25	2	--	--	--
64 54 24	147 48 28	01	78-09-05	--	--	600	120

WATER QUALITY DATA COLLECTED FROM SPRINGS DURING WATER YEAR 1978

SOUTH-CENTRAL ALASKA

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER		DATE OF SAMPLE	TIME	SAMPLE TREAT-MENT	STREAM-FLOW, INSTAN-TANEOUS (CFS)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
61 17 07	151 40 47a	01	SB01401319CDBA1S	5063S	78-08-24	0910	1/1	E.20	E90	28	6.0
61 17 07	151 47 35b	01	SB01401421DCBA1S	5065S	78-08-24	1400	1	E.04	E20	28	6.1
61 17 13	151 44 26c	01	SB01401423CACB1S	5064S	78-08-24	1100	1	.10	45	26	6.3

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
61 17 07	151 40 47	01	78-08-24	6.0	12	3	3.2	.9	2.1	.3	11	0
61 17 07	151 47 35	01	78-08-24	1.5	10	0	3.1	.6	2.2	.5	12	0
61 17 13	151 44 26	01	78-08-24	2.5	13	8	4.5	.4	1.0	.4	6	0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)
61 17 07	151 40 47	01	78-08-24	4.5	.2	.0	16	17	34	.34	100	0
61 17 07	151 47 35	01	78-08-24	4.1	.6	.0	15	20	32	.01	600	1
61 17 13	151 44 26	01	78-08-24	5.5	.3	.0	13	16	28	.02	200	0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
61 17 07	151 40 47	01	78-08-24	200	0	0	5	300	50	20	10	.0
61 17 07	151 47 35	01	78-08-24	260	--	0	3	190	60	10	0	.0
61 17 13	151 44 26	01	78-08-24	300	0	0	3	90	20	0	0	.0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
61 17 07	151 40 47	01	78-08-24	0	0	0	0
61 17 07	151 47 35	01	78-08-24	0	1	1	0
61 17 13	151 44 26	01	78-08-24	0	0	0	0

a Lower Capps Spring
b North Capps Spring
c Little Capps Spring
1/ Raw
E Estimated

BEST DOCUMENT AVAILABLE

WATER QUALITY DATA COLLECTED FROM SPRINGS DURING WATER YEAR 1978

NORTHWEST ALASKA

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER		DATE OF SAMPLE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)
67 14 36	162 48 15a	01	KB02101904ABDD1S	20175	78-04-03	1045	9.5	4277	350	7.4	-10.0
67 51 24	157 28 48b	01	KA02800603 15	20185	78-04-08	1045	18	7944	295	7.9	-20.0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
67 14 36	162 48 15	01	78-04-03	4.0	1	4.8	170	11	42	15	8.0	.3
67 51 24	157 28 48	01	78-04-08	1.5	1	9.6	160	0	44	12	.3	.0

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
67 14 36	162 48 15	01	78-04-03	190	0	11	15	.4	4.9	--	191	.13
67 51 24	157 28 48	01	78-04-08	196	0	6.6	.8	.0	4.1	146	165	.20

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
67 14 36	162 48 15	01	78-04-03	.00	0	1	200	--	0	0	20	20
67 51 24	157 28 48	01	78-04-08	.00	160	1	100	0	0	0	340	10

LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	DATE OF SAMPLE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
67 14 36	162 48 15	01	78-04-03	0	0	.0	5	1	0	0	10
67 51 24	157 28 48	01	78-04-08	0	0	.0	3	0	0	0	10

a Spring near Noatak
b Spring near Akiknaak Peaks

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NUMERICAL LISTING

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01036	COBALT, SUSPENDED (UG/L AS CO)
01037	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
01037	COBALT, TOTAL (UG/L AS CO)
01038	COBALT, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CO)
01038	COBALT, TOTAL IN BOTTOM MATERIAL (UG/G AS CO)
01041	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
01041	COPPER, SUSPENDED (UG/L AS CU)
01042	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
01042	COPPER, TOTAL (UG/L AS CU)
01043	COPPER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CU)
01043	COPPER, TOTAL IN BOTTOM MATERIAL (UG/G AS CU)
01044	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
01044	IRON, SUSPENDED (UG/L AS FE)
01045	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01045	IRON, TOTAL (UG/L AS FE)
01050	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
01050	LEAD, SUSPENDED (UG/L AS PB)
01051	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
01051	LEAD, TOTAL (UG/L AS PB)
01052	LEAD, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS PB)
01052	LEAD, TOTAL IN BOTTOM MATERIAL (UG/G AS PB)
01053	MANGANESE, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MN)
01053	MANGANESE, TOTAL IN BOTTOM MATERIAL (UG/G AS MN)
01054	MANGANESE, SUSPENDED RECOVERABLE (UG/L AS MN)
01054	MANGANESE, SUSPENDED (UG/L AS MN)
01055	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
01055	MANGANESE, TOTAL (UG/L AS MN)
01061	MOLYBDENUM, SUSPENDED RECOVERABLE (UG/L AS MO)
01061	MOLYBDENUM, SUSPENDED (UG/L AS MO)
01062	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
01062	MOLYBDENUM, TOTAL (UG/L AS MO)
01063	MOLYBDENUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MO)
01063	MOLYBDENUM, TOTAL IN BOTTOM MATERIAL (UG/G AS MO)
01066	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
01066	NICKEL, SUSPENDED (UG/L AS NI)
01067	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
01067	NICKEL, TOTAL (UG/L AS NI)
01068	NICKEL, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS NI)
01068	NICKEL, TOTAL IN BOTTOM MATERIAL (UG/G AS NI)
01076	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
01076	SILVER, SUSPENDED (UG/L AS AG)
01077	SILVER, TOTAL RECOVERABLE (UG/L AS AG)
01077	SILVER, TOTAL (UG/L AS AG)
01078	SILVER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AG)
01078	SILVER, TOTAL IN BOTTOM MATERIAL (UG/G AS AG)
01081	STRONTIUM, SUSPENDED RECOVERABLE (UG/L AS SR)
01081	STRONTIUM, SUSPENDED (UG/L AS SR)
01082	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)
01082	STRONTIUM, TOTAL (UG/L AS SR)
01083	STRONTIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS SR)
01083	STRONTIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS SR)
01086	VANADIUM, SUSPENDED TOTAL (UG/L AS V)
01086	VANADIUM, SUSPENDED (UG/L AS V)
01091	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
01091	ZINC, SUSPENDED (UG/L AS ZN)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01092	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
01092	ZINC, TOTAL (UG/L AS ZN)
01093	ZINC, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS ZN)
01093	ZINC, TOTAL IN BOTTOM MATERIAL (UG/G AS ZN)
01096	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)
01096	ANTIMONY, SUSPENDED (UG/L AS SB)
01101	TIN, SUSPENDED RECOVERABLE (UG/L AS SN)
01101	TIN, SUSPENDED (UG/L AS SN)
01102	TIN, TOTAL RECOVERABLE (UG/L AS SN)
01102	TIN, TOTAL (UG/L AS SN)
01105	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
01105	ALUMINUM, TOTAL (UG/L AS AL)
01107	ALUMINUM, SUSPENDED RECOVERABLE (UG/L AS AL)
01107	ALUMINUM, SUSPENDED (UG/L AS AL)
01108	ALUMINUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AL)
01108	ALUMINUM, TOTAL IN BOTTOM MATERIAL (UG/G AS AL)
01116	CESIUM, SUSPENDED TOTAL (UG/L AS CS)
01116	CESIUM, SUSPENDED (UG/L AS CS)
01121	GALLIUM, SUSPENDED TOTAL (UG/L AS GA)
01121	GALLIUM, SUSPENDED (UG/L AS GA)
01126	GERMANIUM, SUSPENDED TOTAL (UG/L AS GE)
01126	GERMANIUM, SUSPENDED (UG/L AS GE)
01131	LITHIUM, SUSPENDED RECOVERABLE (UG/L AS LI)
01131	LITHIUM, SUSPENDED (UG/L AS LI)
01132	LITHIUM, TOTAL RECOVERABLE (UG/L AS LI)
01132	LITHIUM, TOTAL (UG/L AS LI)
01136	RUBIDIUM, SUSPENDED TOTAL (UG/L AS RB)
01136	RUBIDIUM, SUSPENDED (UG/L AS RB)
01146	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)
01146	SELENIUM, SUSPENDED (UG/L AS SE)
01151	TITANIUM, SUSPENDED TOTAL (UG/L AS TI)
01151	TITANIUM, SUSPENDED (UG/L AS TI)
01161	ZIRCONIUM, SUSPENDED TOTAL (UG/L AS ZR)
01161	ZIRCONIUM, SUSPENDED (UG/L AS ZR)
01170	IRON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS FE)
01170	IRON, TOTAL IN BOTTOM MATERIAL (UG/G AS FE)
01505	ALPHA, SUSPENDED TOTAL (PCI/L)
01505	ALPHA, SUSPENDED (PCI/L)
01506	ALPHA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
01506	ALPHA, SUSPENDED, COUNTING ERROR (PCI/L)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS U NATURAL)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/L AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/G AS U NATURAL)
03505	BETA, SUSPENDED TOTAL (PCI/L)
03505	BETA, SUSPENDED (PCI/L)
03506	BETA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
03506	BETA, SUSPENDED, COUNTING ERROR (PCI/L)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS CS-137)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS CS-137)

APPENDIX
NUMERICAL LISTING

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
03517	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS SR/YT-90)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS SR/YT-90)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS CS-137)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS CS-137)
07010	TRITIUM, SUSPENDED TOTAL (PCI/L)
07010	TRITIUM, SUSPENDED (PCI/L)
07011	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07011	TRITIUM, SUSPENDED, COUNTING ERROR (PCI/L)
07014	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (TRITIUM UNITS)
07014	TRITIUM, SUSPENDED, COUNTING ERROR (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED TOTAL (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED (TRITIUM UNITS)
07052	CALCIUM 45, SUSPENDED TOTAL (PCI/L)
07052	CALCIUM 45, SUSPENDED (PCI/L)
07053	CALCIUM 45, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07053	CALCIUM 45, SUSPENDED, COUNTING ERROR (PCI/L)
07062	IRON 59, SUSPENDED TOTAL (PCI/L)
07062	IRON 59, SUSPENDED (PCI/L)
07063	IRON 59, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07063	IRON 59, SUSPENDED, COUNTING ERROR (PCI/L)
07082	RHODAMINE WT, SUSPENDED TOTAL (UG/L)
07082	RHODAMINE WT, SUSPENDED (UG/L)
07102	SELENIUM 75, SUSPENDED TOTAL (PCI/L)
07102	SELENIUM 75, SUSPENDED (PCI/L)
07103	SELENIUM 75, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07103	SELENIUM 75, SUSPENDED, COUNTING ERROR (PCI/L)
07122	SILVER 110, SUSPENDED TOTAL (PCI/L)
07122	SILVER 110, SUSPENDED (PCI/L)
07123	SILVER 110, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07123	SILVER 110, SUSPENDED, COUNTING ERROR (PCI/L)
07142	SULFUR 35, SUSPENDED TOTAL (PCI/L)
07142	SULFUR 35, SUSPENDED (PCI/L)
07143	SULFUR 35, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07143	SULFUR 35, SUSPENDED, COUNTING ERROR (PCI/L)
09505	RADIUM 226, SUSPENDED TOTAL (PCI/L)
09505	RADIUM 226, SUSPENDED (PCI/L)
13505	STRONTIUM 90, SUSPENDED TOTAL (PCI/L)
13505	STRONTIUM 90, SUSPENDED (PCI/L)
13506	STRONTIUM 90, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
13506	STRONTIUM 90, SUSPENDED, COUNTING ERROR (PCI/L)
22705	URANIUM, NATURAL, SUSPENDED TOTAL (UG/L AS U NATURAL)
22705	URANIUM, NATURAL, SUSPENDED (UG/L AS U NATURAL)
28404	CESIUM 137, SUSPENDED TOTAL (PCI/L)
28404	CESIUM 137, SUSPENDED (PCI/L)
28405	CESIUM 137,SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28405	CESIUM 137,SUSPENDED, COUNTING ERROR (PCI/L)
28412	CESIUM 134, SUSPENDED TOTAL (PCI/L)
28412	CESIUM 134, SUSPENDED (PCI/L)
28413	CESIUM 134, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28413	CESIUM 134, SUSPENDED, COUNTING ERROR (PCI/L)
29633	SCANDIUM 46, SUSPENDED TOTAL (PCI/L)
29633	SCANDIUM 46, SUSPENDED (PCI/L)
29634	SCANDIUM 46, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
29634	SCANDIUM 46, SUSPENDED, COUNTING ERROR (PCI/L)
39332	ALDRIN, SUSPENDED TOTAL (UG/L)
39332	ALDRIN, SUSPENDED (UG/L)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
39342	LINDANE, SUSPENDED TOTAL (UG/L)
39342	LINDANE, SUSPENDED (UG/L)
39353	CHLORDANE, SUSPENDED TOTAL (UG/L)
39353	CHLORDANE, SUSPENDED (UG/L)
39362	DDD, SUSPENDED TOTAL (UG/L)
39362	DDD, SUSPENDED (UG/L)
39367	DDE, SUSPENDED TOTAL (UG/L)
39367	DDE, SUSPENDED (UG/L)
39372	DDT, SUSPENDED TOTAL (UG/L)
39372	DDT, SUSPENDED (UG/L)
39382	DIELDRIN, SUSPENDED TOTAL (UG/L)
39382	DIELDRIN, SUSPENDED (UG/L)
39392	ENDRIN, SUSPENDED TOTAL (UG/L)
39392	ENDRIN, SUSPENDED (UG/L)
39402	TOXAPHENE, SUSPENDED TOTAL (UG/L)
39402	TOXAPHENE, SUSPENDED (UG/L)
39412	HEPTACHLOR, SUSPENDED TOTAL (UG/L)
39412	HEPTACHLOR, SUSPENDED (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED TOTAL (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED (UG/L)
39432	ISODRIN, SUSPENDED TOTAL (UG/L)
39432	ISODRIN, SUSPENDED (UG/L)
39502	AROCLOR, SUSPENDED TOTAL, 1248 PCB SERIES (UG/L)
39502	AROCLOR, SUSPENDED, 1248 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED TOTAL, 1254 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED, 1254 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED TOTAL, 1260 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED, 1260 PCB SERIES (UG/L)
39518	PCB, SUSPENDED TOTAL (UG/L)
39518	PCB, SUSPENDED (UG/L)
39533	MALATHION, SUSPENDED TOTAL (UG/L)
39533	MALATHION, SUSPENDED (UG/L)
39543	PARATHION, SUSPENDED TOTAL (UG/L)
39543	PARATHION, SUSPENDED (UG/L)
39573	DIAZINON, SUSPENDED TOTAL (UG/L)
39573	DIAZINON, SUSPENDED (UG/L)
39603	METHYL PARATHION, SUSPENDED TOTAL (UG/L)
39603	METHYL PARATHION, SUSPENDED (UG/L)
39733	2,4-D, SUSPENDED TOTAL (UG/L)
39733	2,4-D, SUSPENDED (UG/L)
39743	2,4,5-T, SUSPENDED TOTAL (UG/L)
39743	2,4,5-T, SUSPENDED (UG/L)
39757	MIREX, SUSPENDED TOTAL (UG/L)
39757	MIREX, SUSPENDED (UG/L)
39763	SILVEX, SUSPENDED TOTAL (UG/L)
39763	SILVEX, SUSPENDED (UG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED TOTAL (MG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED (MG/L)
71895	MERCURY, SUSPENDED RECOVERABLE (UG/L AS HG)
71895	MERCURY, SUSPENDED (UG/L AS HG)
71900	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)
71900	MERCURY, TOTAL (UG/L AS HG)
71921	MERCURY, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS HG)
71921	MERCURY, TOTAL IN BOTTOM MATERIAL (UG/G AS HG)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/L AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/L AS U NATURAL)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS SR/YT-90)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS SR/YT-90)

APPENDIX
NUMERICAL LISTING

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
00623	NITROGEN, AMMONIA PLUS ORGANIC, DISSOLVED (MG/L AS N)
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)
00624	NITROGEN, AMMONIA PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS N)
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)
00625	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL (MG/L AS N)
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)
00626	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00626	NITROGEN, KJELDAHL, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00683	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00683	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED TOTAL (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED (MG/L AS C)
00916	CALCIUM, TOTAL RECOVERABLE (MG/L AS CA)
00916	CALCIUM, TOTAL (MG/L AS CA)
00926	MAGNESIUM, SUSPENDED RECOVERABLE (MG/L AS MG)
00926	MAGNESIUM, SUSPENDED (MG/L AS MG)
00927	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
00927	MAGNESIUM, TOTAL (MG/L AS MG)
01001	ARSENIC, SUSPENDED TOTAL (UG/L AS AS)
01001	ARSENIC, SUSPENDED (UG/L AS AS)
01006	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
01006	BARIUM, SUSPENDED (UG/L AS BA)
01007	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
01007	BARIUM, TOTAL (UG/L AS BA)
01008	BARIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BA)
01008	BARIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BA)
01011	BERYLLIUM, SUSPENDED RECOVERABLE (UG/L AS BE)
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)
01012	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
01012	BERYLLIUM, TOTAL (UG/L AS BE)
01013	BERYLLIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BE)
01013	BERYLLIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BE)
01016	BISMUTH, SUSPENDED TOTAL (UG/L AS BI)
01016	BISMUTH, SUSPENDED (UG/L AS BI)
01021	BORON, SUSPENDED RECOVERABLE (UG/L AS B)
01021	BORON, SUSPENDED (UG/L AS B)
01022	BORON, TOTAL RECOVERABLE (UG/L AS B)
01022	BORON, TOTAL (UG/L AS B)
01023	BORON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS B)
01023	BORON, TOTAL IN BOTTOM MATERIAL (UG/G AS B)
01026	CADMIUM, SUSPENDED RECOVERABLE (UG/L AS CD)
01026	CADMIUM, SUSPENDED (UG/L AS CD)
01027	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)
01027	CADMIUM, TOTAL (UG/L AS CD)
01028	CADMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CD)
01028	CADMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CD)
01029	CHROMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CR)
01029	CHROMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CR)
01031	CHROMIUM, SUSPENDED RECOVERABLE (UG/L AS CR)
01031	CHROMIUM, SUSPENDED (UG/L AS CR)
01034	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
01034	CHROMIUM, TOTAL (UG/L AS CR)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
39332	ALDRIN, SUSPENDED TOTAL (UG/L)
39332	ALDRIN, SUSPENDED (UG/L)
01505	ALPHA, SUSPENDED TOTAL (PCI/L)
01505	ALPHA, SUSPENDED (PCI/L)
01506	ALPHA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
01506	ALPHA, SUSPENDED, COUNTING ERROR (PCI/L)
01105	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
01105	ALUMINUM, TOTAL (UG/L AS AL)
01107	ALUMINUM, SUSPENDED RECOVERABLE (UG/L AS AL)
01107	ALUMINUM, SUSPENDED (UG/L AS AL)
01108	ALUMINUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AL)
01108	ALUMINUM, TOTAL IN BOTTOM MATERIAL (UG/G AS AL)
01096	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)
01096	ANTIMONY, SUSPENDED (UG/L AS SB)
39502	AROCLOR, SUSPENDED TOTAL, 1248 PCB SERIES (UG/L)
39502	AROCLOR, SUSPENDED, 1248 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED TOTAL, 1254 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED, 1254 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED TOTAL, 1260 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED, 1260 PCB SERIES (UG/L)
01001	ARSENIC, SUSPENDED TOTAL (UG/L AS AS)
01001	ARSENIC, SUSPENDED (UG/L AS AS)
01006	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
01006	BARIUM, SUSPENDED (UG/L AS BA)
01007	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
01007	BARIUM, TOTAL (UG/L AS BA)
01008	BARIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BA)
01008	BARIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BA)
01011	BERYLLIUM, SUSPENDED RECOVERABLE (UG/L AS BE)
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)
01012	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
01012	BERYLLIUM, TOTAL (UG/L AS BE)
01013	BERYLLIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BE)
01013	BERYLLIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BE)
03505	BETA, SUSPENDED TOTAL (PCI/L)
03505	BETA, SUSPENDED (PCI/L)
03506	BETA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
03506	BETA, SUSPENDED, COUNTING ERROR (PCI/L)
01016	BISMUTH, SUSPENDED TOTAL (UG/L AS BI)
01016	BISMUTH, SUSPENDED (UG/L AS BI)
01021	BORON, SUSPENDED RECOVERABLE (UG/L AS B)
01021	BORON, SUSPENDED (UG/L AS B)
01022	BORON, TOTAL RECOVERABLE (UG/L AS B)
01022	BORON, TOTAL (UG/L AS B)
01023	BORON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS B)
01023	BORON, TOTAL IN BOTTOM MATERIAL (UG/G AS B)
01026	CADMIUM, SUSPENDED RECOVERABLE (UG/L AS CD)
01026	CADMIUM, SUSPENDED (UG/L AS CD)
01027	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)
01027	CADMIUM, TOTAL (UG/L AS CD)
01028	CADMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CD)
01028	CADMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CD)
00916	CALCIUM, TOTAL RECOVERABLE (MG/L AS CA)
00916	CALCIUM, TOTAL (MG/L AS CA)
07052	CALCIUM 45, SUSPENDED TOTAL (PCI/L)
07052	CALCIUM 45, SUSPENDED (PCI/L)

APPENDIX
ALPHABETICAL LISTING

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PARM.      NEW TERMINOLOGY -- FIRST LINE
CODE       OLD TERMINOLOGY -- SECOND LINE
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07053  CALCIUM 45, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07053  CALCIUM 45, SUSPENDED, COUNTING ERROR (PCI/L)

00683  CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00683  CARBON, ORGANIC, SUSPENDED (MG/L AS C)

00688  CARBON, INORGANIC, SUSPENDED TOTAL (MG/L AS C)
00688  CARBON, INORGANIC, SUSPENDED (MG/L AS C)

00689  CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00689  CARBON, ORGANIC, SUSPENDED (MG/L AS C)

00694  CARBON, INORGANIC PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00694  CARBON, INORGANIC PLUS ORGANIC, SUSPENDED (MG/L AS C)

01116  CESIUM, SUSPENDED TOTAL (UG/L AS CS)
01116  CESIUM, SUSPENDED (UG/L AS CS)

28404  CESIUM 137, SUSPENDED TOTAL (PCI/L)
28404  CESIUM 137, SUSPENDED (PCI/L)

28405  CESIUM 137,SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28405  CESIUM 137,SUSPENDED, COUNTING ERROR (PCI/L)

28412  CESIUM 134, SUSPENDED TOTAL (PCI/L)
28412  CESIUM 134, SUSPENDED (PCI/L)

28413  CESIUM 134, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28413  CESIUM 134, SUSPENDED, COUNTING ERROR (PCI/L)

39353  CHLORDANE, SUSPENDED TOTAL (UG/L)
39353  CHLORDANE, SUSPENDED (UG/L)

01029  CHROMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CR)
01029  CHROMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CR)

01031  CHROMIUM, SUSPENDED RECOVERABLE (UG/L AS CR)
01031  CHROMIUM, SUSPENDED (UG/L AS CR)

01034  CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
01034  CHROMIUM, TOTAL (UG/L AS CR)

01036  COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
01036  COBALT, SUSPENDED (UG/L AS CO)

01037  COBALT, TOTAL RECOVERABLE (UG/L AS CO)
01037  COBALT, TOTAL (UG/L AS CO)

01038  COBALT, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CO)
01038  COBALT, TOTAL IN BOTTOM MATERIAL (UG/G AS CO)

01041  COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
01041  COPPER, SUSPENDED (UG/L AS CU)

01042  COPPER, TOTAL RECOVERABLE (UG/L AS CU)
01042  COPPER, TOTAL (UG/L AS CU)

01043  COPPER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CU)
01043  COPPER, TOTAL IN BOTTOM MATERIAL (UG/G AS CU)

39362  DDD, SUSPENDED TOTAL (UG/L)
39362  DDD, SUSPENDED (UG/L)

39367  DDE, SUSPENDED TOTAL (UG/L)
39367  DDE, SUSPENDED (UG/L)

39372  DDT, SUSPENDED TOTAL (UG/L)
39372  DDT, SUSPENDED (UG/L)

39573  DIAZINON, SUSPENDED TOTAL (UG/L)
39573  DIAZINON, SUSPENDED (UG/L)

39382  DIELDRIN, SUSPENDED TOTAL (UG/L)
39382  DIELDRIN, SUSPENDED (UG/L)

39392  ENDRIN, SUSPENDED TOTAL (UG/L)
39392  ENDRIN, SUSPENDED (UG/L)

01121  GALLIUM, SUSPENDED TOTAL (UG/L AS GA)
01121  GALLIUM, SUSPENDED (UG/L AS GA)

01126  GERMANIUM, SUSPENDED TOTAL (UG/L AS GE)
01126  GERMANIUM, SUSPENDED (UG/L AS GE)
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PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS U NATURAL)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/L AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/G AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/L AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/L AS U NATURAL)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS SR/YT-90)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS SR/YT-90)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS CS-137)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS CS-137)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS SR/YT-90)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS SR/YT-90)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS CS-137)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS CS-137)
39412	HEPTACHLOR, SUSPENDED TOTAL (UG/L)
39412	HEPTACHLOR, SUSPENDED (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED TOTAL (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED (UG/L)
01044	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
01044	IRON, SUSPENDED (UG/L AS FE)
01045	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01045	IRON, TOTAL (UG/L AS FE)
01170	IRON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS FE)
01170	IRON, TOTAL IN BOTTOM MATERIAL (UG/G AS FE)
07062	IRON 59, SUSPENDED TOTAL (PCI/L)
07062	IRON 59, SUSPENDED (PCI/L)
07063	IRON 59, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07063	IRON 59, SUSPENDED, COUNTING ERROR (PCI/L)
39432	ISODRIN, SUSPENDED TOTAL (UG/L)
39432	ISODRIN, SUSPENDED (UG/L)
01050	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
01050	LEAD, SUSPENDED (UG/L AS PB)
01051	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
01051	LEAD, TOTAL (UG/L AS PB)
01052	LEAD, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS PB)
01052	LEAD, TOTAL IN BOTTOM MATERIAL (UG/G AS PB)
39342	LINDANE, SUSPENDED TOTAL (UG/L)
39342	LINDANE, SUSPENDED (UG/L)
01131	LITHIUM, SUSPENDED RECOVERABLE (UG/L AS LI)
01131	LITHIUM, SUSPENDED (UG/L AS LI)
01132	LITHIUM, TOTAL RECOVERABLE (UG/L AS LI)
01132	LITHIUM, TOTAL (UG/L AS LI)
00926	MAGNESIUM, SUSPENDED RECOVERABLE (MG/L AS MG)
00926	MAGNESIUM, SUSPENDED (MG/L AS MG)
00927	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
00927	MAGNESIUM, TOTAL (MG/L AS MG)

APPENDIX
ALPHABETICAL LISTING

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
39533	MALATHION, SUSPENDED TOTAL (UG/L)
39533	MALATHION, SUSPENDED (UG/L)
01053	MANGANESE, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MN)
01053	MANGANESE, TOTAL IN BOTTOM MATERIAL (UG/G AS MN)
01054	MANGANESE, SUSPENDED RECOVERABLE (UG/L AS MN)
01054	MANGANESE, SUSPENDED (UG/L AS MN)
01055	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
01055	MANGANESE, TOTAL (UG/L AS MN)
71895	MERCURY, SUSPENDED RECOVERABLE (UG/L AS HG)
71895	MERCURY, SUSPENDED (UG/L AS HG)
71900	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)
71900	MERCURY, TOTAL (UG/L AS HG)
71921	MERCURY, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS HG)
71921	MERCURY, TOTAL IN BOTTOM MATERIAL (UG/G AS HG)
39603	METHYL PARATHION, SUSPENDED TOTAL (UG/L)
39603	METHYL PARATHION, SUSPENDED (UG/L)
39757	MIREX, SUSPENDED TOTAL (UG/L)
39757	MIREX, SUSPENDED (UG/L)
01061	MOLYBDENUM, SUSPENDED RECOVERABLE (UG/L AS MO)
01061	MOLYBDENUM, SUSPENDED (UG/L AS MO)
01062	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
01062	MOLYBDENUM, TOTAL (UG/L AS MO)
01063	MOLYBDENUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MO)
01063	MOLYBDENUM, TOTAL IN BOTTOM MATERIAL (UG/G AS MO)
01066	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
01066	NICKEL, SUSPENDED (UG/L AS NI)
01067	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
01067	NICKEL, TOTAL (UG/L AS NI)
01068	NICKEL, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS NI)
01068	NICKEL, TOTAL IN BOTTOM MATERIAL (UG/G AS NI)
00623	NITROGEN, AMMONIA PLUS ORGANIC, DISSOLVED (MG/L AS N)
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)
00624	NITROGEN, AMMONIA PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS N)
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)
00625	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL (MG/L AS N)
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)
00626	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00626	NITROGEN, KJELDAHL, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
39543	PARATHION, SUSPENDED TOTAL (UG/L)
39543	PARATHION, SUSPENDED (UG/L)
39518	PCB, SUSPENDED TOTAL (UG/L)
39518	PCB, SUSPENDED (UG/L)
09505	RADIUM 226, SUSPENDED TOTAL (PCI/L)
09505	RADIUM 226, SUSPENDED (PCI/L)
07082	RHODAMINE WT, SUSPENDED TOTAL (UG/L)
07082	RHODAMINE WT, SUSPENDED (UG/L)
01136	RUBIDIUM, SUSPENDED TOTAL (UG/L AS RB)
01136	RUBIDIUM, SUSPENDED (UG/L AS RB)
29633	SCANDIUM 46, SUSPENDED TOTAL (PCI/L)
29633	SCANDIUM 46, SUSPENDED (PCI/L)
29634	SCANDIUM 46, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
29634	SCANDIUM 46, SUSPENDED, COUNTING ERROR (PCI/L)
01146	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)
01146	SELENIUM, SUSPENDED (UG/L AS SE)
07102	SELENIUM 75, SUSPENDED TOTAL (PCI/L)
07102	SELENIUM 75, SUSPENDED (PCI/L)
07103	SELENIUM 75, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07103	SELENIUM 75, SUSPENDED, COUNTING ERROR (PCI/L)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01076	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
01076	SILVER, SUSPENDED (UG/L AS AG)
01077	SILVER, TOTAL RECOVERABLE (UG/L AS AG)
01077	SILVER, TOTAL (UG/L AS AG)
01078	SILVER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AG)
01078	SILVER, TOTAL IN BOTTOM MATERIAL (UG/G AS AG)
07122	SILVER 110, SUSPENDED TOTAL (PCI/L)
07122	SILVER 110, SUSPENDED (PCI/L)
07123	SILVER 110, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07123	SILVER 110, SUSPENDED, COUNTING ERROR (PCI/L)
39763	SILVEX, SUSPENDED TOTAL (UG/L)
39763	SILVEX, SUSPENDED (UG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED TOTAL (MG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED (MG/L)
01081	STRONTIUM, SUSPENDED RECOVERABLE (UG/L AS SR)
01081	STRONTIUM, SUSPENDED (UG/L AS SR)
01082	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)
01082	STRONTIUM, TOTAL (UG/L AS SR)
01083	STRONTIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS SR)
01083	STRONTIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS SR)
13505	STRONTIUM 90, SUSPENDED TOTAL (PCI/L)
13505	STRONTIUM 90, SUSPENDED (PCI/L)
13506	STRONTIUM 90, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
13506	STRONTIUM 90, SUSPENDED, COUNTING ERROR (PCI/L)
07142	SULFUR 35, SUSPENDED TOTAL (PCI/L)
07142	SULFUR 35, SUSPENDED (PCI/L)
07143	SULFUR 35, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07143	SULFUR 35, SUSPENDED, COUNTING ERROR (PCI/L)
01101	TIN, SUSPENDED RECOVERABLE (UG/L AS SN)
01101	TIN, SUSPENDED (UG/L AS SN)
01102	TIN, TOTAL RECOVERABLE (UG/L AS SN)
01102	TIN, TOTAL (UG/L AS SN)
01151	TITANIUM, SUSPENDED TOTAL (UG/L AS TI)
01151	TITANIUM, SUSPENDED (UG/L AS TI)
39402	TOXAPHENE, SUSPENDED TOTAL (UG/L)
39402	TOXAPHENE, SUSPENDED (UG/L)
07010	TRITIUM, SUSPENDED TOTAL (PCI/L)
07010	TRITIUM, SUSPENDED (PCI/L)
07011	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07011	TRITIUM, SUSPENDED, COUNTING ERROR (PCI/L)
07014	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (TRITIUM UNITS)
07014	TRITIUM, SUSPENDED, COUNTING ERROR (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED TOTAL (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED (TRITIUM UNITS)
22705	URANIUM, NATURAL, SUSPENDED TOTAL (UG/L AS U NATURAL)
22705	URANIUM, NATURAL, SUSPENDED (UG/L AS U NATURAL)
01086	VANADIUM, SUSPENDED TOTAL (UG/L AS V)
01086	VANADIUM, SUSPENDED (UG/L AS V)
01091	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
01091	ZINC, SUSPENDED (UG/L AS ZN)
01092	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
01092	ZINC, TOTAL (UG/L AS ZN)
01093	ZINC, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS ZN)
01093	ZINC, TOTAL IN BOTTOM MATERIAL (UG/G AS ZN)
01161	ZIRCONIUM, SUSPENDED TOTAL (UG/L AS ZR)
01161	ZIRCONIUM, SUSPENDED (UG/L AS ZR)
39733	2,4-D, SUSPENDED TOTAL (UG/L)
39733	2,4-D, SUSPENDED (UG/L)
39743	2,4,5-T, SUSPENDED TOTAL (UG/L)
39743	2,4,5-T, SUSPENDED (UG/L)

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons